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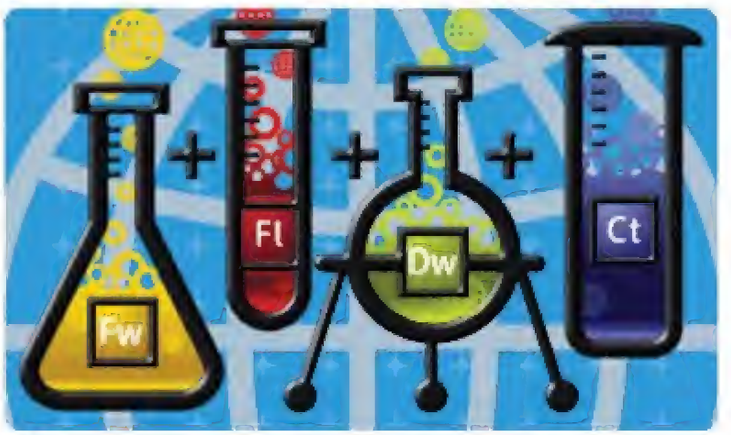

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MACWORLD.COM'S TOP 5

The top 5 stories on Macworld.com are:

1 Contest Winner: Vista More Secure Than Mac OS
The security researcher who uncovered a QuickTime flaw offers some advice for Mac users (macworld.com/2822).

2 Apple Updates MacBook with Faster Processors
Apple has updated its consumer laptops—faster processors, 1GB of RAM, and larger hard drives (macworld.com/2823).

3 How to Make Tiger Roar Like a Leopard
Computerworld's Ryan Faas has suggestions for using open-source, shareware, and commercial programs to speed up your OS (macworld.com/2824).

4 Jobs Addresses Backdating, Environment at Shareholder Meeting
At Apple's annual shareholders meeting, Steve Jobs addressed backdating stock-option scandals, Greenpeace, the iPhone, and the delay of Leopard (macworld.com/2825).

5 MacUser—Breaking Down 52 Ways to Speed Up Your Mac
Derik DeLong looks at various ways to speed up your Mac and determines whether they actually have an effect on performance (macworld.com/2826).

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In the Shadow of the iPhone

At WWDC, Leopard loses the spotlight

Eighteen days. The number hung over the auditorium like fog on a gray San Francisco day. Although Steve Jobs spent most of his keynote address at June's Worldwide Developers Conference (WWDC) discussing the next version of Mac OS X (Leopard), the impending release of the iPhone, which is set for June 29, colored every aspect of the presentation.

It didn't help that Jobs introduced Leopard at last year's WWDC, making large parts of this year's presentation feel like an old-fashioned summer TV rerun. Originally, the idea was that Leopard would be released by this year's conference. But Apple's mad rush to ready the iPhone for its date with destiny meant that Leopard would have to wait until October.

Hints of Leopard

Yes, Jobs did unveil some new features in Leopard, features that could make this the biggest overhaul of the Mac OS X interface since that operating system was first launched.

Cover Flow, a clever iTunes add-on that Apple purchased from programmer Jonathan del Strother, is now built into iTunes. It's also going to be one of four standard view options in the new Leopard edition of the Finder.

Apple appears to have settled on a single window style—the one you'll find now in iTunes 7—and that choice alone will provide some delightful consistency to the Mac interface. The addition of Stacks to the Dock could make the Dock a pivotal part of the Mac interface, rather than a minor tool for launching and switching applications. Throw in a few of the previously announced features, especially Spaces, the multiworkspace utility, and Leopard could indeed enable a major improvement in Mac OS X productivity—albeit after a bit of a learning curve.

Jobs spent some time discussing

The few tidbits about Leopard weren't the hot topic after Jobs's keynote address.

Boot Camp, mostly to emphasize what it wasn't: a Parallels Desktop and VMWare Fusion killer. Those two programs let you run Windows and Mac OS side-by-side (instead of rebooting into a Windows session). There had been some talk that the next version of Boot Camp would offer the same feature. But Jobs gave Parallels and VMWare a big verbal hug, calling Boot Camp "a great complement" to those programs. (For more details on Jobs's Leopard preview, see "More of Leopard Revealed," page 18.)

Counting Down

As nice as it was to get those few tidbits about Leopard, what people were really talking about in the halls after Jobs's address was the device that will be released exactly 18 days after the keynote: the iPhone.

Ever since the iPhone was announced at last January's Macworld Expo, the people who write software for the Mac have wondered: Will we be able to write software that runs on the iPhone, too?

Apple's answer has evolved over time. In January, it appeared to be no. By early May, the company was "wrestling" with the matter. By the end of May, Steve Jobs was suggesting that Apple would find a way to let developers write software for the iPhone.

At WWDC, Jobs said that would-be iPhone developers could write snazzy Web applications that would work on the phone's built-in Safari Web browser. That's not a bad idea—in fact, it's one that many developers would have suggested themselves if they had gotten the chance.

These days, Web-based software can be pretty sophisticated. We've even devoted a story in this issue to the remarkable new office suite offered by Google (see page 60). But as advanced as Web software has become, it's still not good enough for many tasks or for people who work without access to the Internet.

Apple's clearly been sprinting for six months just to get the iPhone ready for the world to see. And I have little doubt that, in a few months, the company will be ready to talk to developers about other ways of writing "real" software (not just Web applications) to run on its new baby. That's good news for potential iPhone users. Because as skilled as Apple's in-house programmers are, they won't ever be able to fulfill the needs of every iPhone user. That's where independent programmers could play a key role—just as they do on the Mac.

By the time you read this, the hype about the iPhone will have reached a crescendo. We plan on providing in-depth coverage of the iPhone in our next issue, but in the meantime I encourage you to visit macworld.com/iphone for the latest iPhone coverage from *Macworld*'s expert writers.

What do you think about the iPhone? Join the discussion at macworld.com/forums, or drop me a note at jason_snell@macworld.com.

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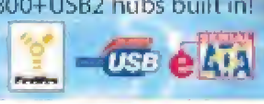

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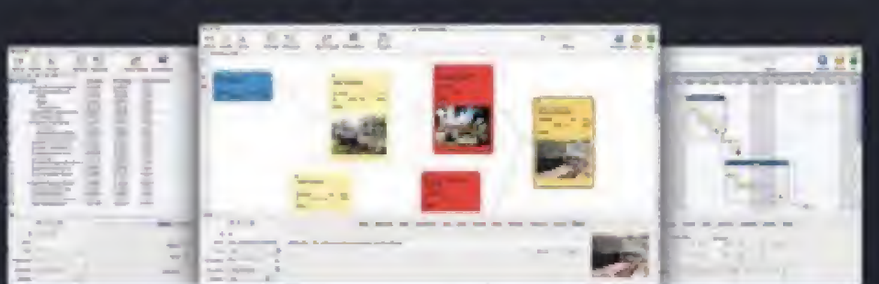

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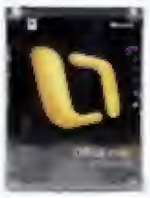

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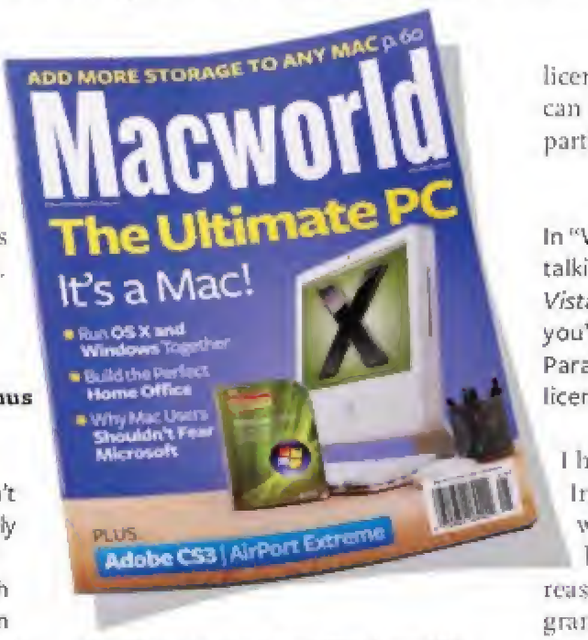
Parallels Report

Thanks for writing the article about running Windows on a Mac ("4 Ways to Windows," May 2007). I have one question: I'm about to buy a new Mac mini. I'd really like to purchase Apple's Bluetooth keyboard and mouse with it. But in your article, you said Parallels' Bluetooth support was poor. Should I just use Boot Camp instead?

David Pulphus



They should work fine. You might have trouble with Bluetooth devices that don't have native OS X support, but that clearly isn't the case with Apple keyboards and mice. For instance, a Bluetooth GPS with Windows drivers probably won't work in Parallels (it should work fine in Boot Camp, though). I use a wireless keyboard and mouse all the time in Parallels and VMWare Fusion with no problem.—Rob Griffiths

Rob Griffiths' article gave me just the info I needed to order a MacBook Pro with Parallels. But I was confused by one thing. Griffiths states about Parallels, "You can also run Windows XP from a Boot Camp partition—meaning that you need only one copy of Windows XP." But in "Which Windows?" Christopher Breen writes, "Microsoft demands that each installation have its own license. So if you wish to install it in both Boot Camp and a virtualization application, you'll need two Windows licenses." Does this mean that Parallels can access the OS in the Boot Camp partition without problems?

Thom Duncan

In "Which Windows," Christopher was talking about Microsoft's licensing for *Vista*, which is quite complex. But if you're running XP with Boot Camp and Parallels, you need only the one license.—Rob Griffiths

I have been lured to the Dark Side. Instead of replacing my aging G4 with a new Intel-based Macintosh, I have purchased a Dell PC. My main reasons: I need to run some OS 9 programs (especially PageMaker); and if I have to buy a Windows version (because OS 9 won't run on those new Intel Macs), I may as well run it on a Windows PC. Also, with every update, OS X has become more bloated with new features that I don't use and that often get in the way.

Steven Rudolph

Your attempt to promote Microsoft Vista and related Microsoft software was laughable. Anyone who has ever run Microsoft programs will quickly tell you that they are the most bug-ridden, glitch-filled, unproductive programs on the planet. Anyone who would buy a Mac and then load it with such terrible software should have his or her head examined. You can put lipstick on a pig, but in the end you'll still have a pig.

Tom Kirkman

The Not-So-Ultimate Office

No UPS solution for "The Ultimate Home Office" (May 2007)? Christopher Breen must think either that home power generators are common, or that it is no big deal to save your work every few minutes.

Scott Bunnell

OVERHEARD ON THE FORUMS

I disagree with the notion of adding subscription services to the iTunes Store. All it will bring is complexity and confusion. Which of my songs are subscription based and which are purchased? Which ones can I burn to a CD and which can I not? Too many hassles.

whitedog
macworld.com/2773

I have never in my 15 years of loving and using Macs seen so many people switch from Windows to Macs, and almost every one of them has switched to a MacBook.

hautster
macworld.com/2774

MAGAZINE PHOTOGRAPH BY PETER BELANGER

While I'm a firm believer in having a robust UPS (or two or three), my main goal in that story was to come up with lists of equipment necessary to get your work done *right now*. I wasn't willing to sacrifice vital computers or software in order to make room for a UPS, which, while I rely on them, not everyone absolutely requires. Fortunately, the budgets I used in that story are arbitrary, and readers who require a UPS certainly should invest in one.—Christopher Breen

I work for Apple as a product specialist. I was reading "The Ultimate Home Office" in your May 2007 issue and ran across something you should be aware of. In "The Luxury Office" you wrote, "Finally, when you're carrying around—and possibly dropping—a laptop, Apple's three-year extended warranty can give you some piece of mind. . . . " Apple's AppleCare Protection Plan does not cover any sort of accidental damage.

Joey Kelly

Absolutely correct. Regardless, AppleCare remains a good investment for a computer that is likely to get jostled during normal use.—Scholle Sawyer McFarland

In "The Ultimate Home Office," Christopher Breen claims that "Having Apple install RAM was once prohibitively expensive, but now the company's prices are competitive." He then says that Apple's RAM prices are cheaper than those of Crucial. Really? I just bought a new 15-inch 2.16GHz MacBook Pro. Apple offered to increase the RAM from the standard 1GB to 2GB for $175. Instead, I purchased another 1GB stick of RAM from Crucial's Web site for $67.

Domenico Bettinelli

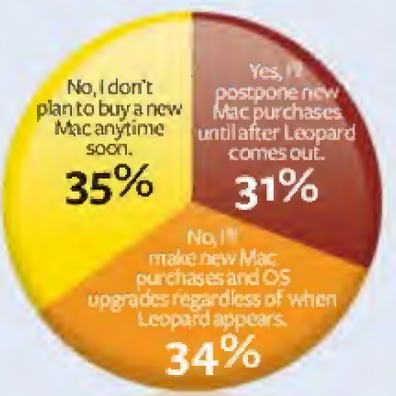
When I wrote that feature, Apple's prices were indeed lower than Crucial's. So the common wisdom—that RAM always costs more from Apple than from other vendors—isn't as common as it once was. But RAM prices are volatile, so it's worth shopping around.—Christopher Breen

Rough Landings

Regarding your review of the new AirPort Extreme Base Station: why did you give it a rating of ●●●●½? The fact that it has no Gigabit Ethernet ports should

READER POLL

Will Apple's delayed release of Leopard affect your Mac-buying plans at all?



Research: Karlin Associates

have knocked off a full mouse. Other problems include the absence of an option for excluding 802.11b devices, and the way my AirPort Extreme crashes whenever I'm doing a long download; I have to reset it physically just to get back on to administer it. To me, those flaws add up to another full mouse off. Not everything Apple makes is awesome.

Alex Papayannis

Way-Back Machines

I like your article on what to do with old Macs ("New Life for Old Macs," April 2007), but could you get a little *older* in your thinking? A Mac that can run OS X 10.4 is not an *old* Mac. Can you do an article on, say, a Quadra 660AV stuck at OS 8?

Mike Riess

The Important Ports

In your May 2007 issue, you have a very informative article about how to set up a secure VNC session through an SSH tunnel (*Geek Factor*). It's mostly correct, except on one point: you say that if you have a NAT router, you need to use port forwarding on port 5900 and on port 22 for SSH. But if you're using SSH tunneling, you need to forward only one port—the SSH port 22. To the remote server, it will look like connections are local. Setting up port forwarding for 5900 makes the remote VNC server accessible directly, which isn't really a good idea.

Paul Linden

You are correct. Thanks for the clarification.—Rob Griffiths

The Mighty Fall

I had to laugh when I read your May hard-drive review ("One Drive Fits All"). You said, "[SATA is] here to stay, and we'll be using it for years to come." Just like SCSI, Zip, Jazz, and a long list of other old technologies. As soon as another faster storage system emerges, SATA will be as relevant as SCSI.

Bob Collins

Welcome to My Shop

Many thanks to Jonathan Seff for his easy-to-follow guide to converting video for the iPod and TV (*Playlist*, May 2007). As a huge animation buff, I've been dying to rip my DVDs of the "Looney Tunes Golden Collection" to my Mac but was unsure of the best way to do it. Now I can watch Bugs Bunny give Elmer Fudd the haircut of a lifetime in "Rabbit of Seville" wherever I go.

Roger Hagy, Jr.

Corrections

In July's *Feedback*, one of the wedges in the "Reader Poll" pie chart was incorrect. The "I don't have plans to upgrade at this time" number should have been 11 percent, not 36 percent.

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Mac Beat

OPERATING SYSTEM

More of Leopard Revealed

Steve Jobs shows off new features of OS update **BY PHILIP MICHAELS**

When Mac OS X 10.5, code-named Leopard, makes its debut in October, it will feature a redesigned Desktop and a new Finder. Those features were among the changes that Apple CEO Steve Jobs introduced while previewing the forthcoming OS X update during his Worldwide Developers Conference (WWDC) keynote speech.

Originally planned for a spring 2007 release, OS X 10.5 is now slated to come out in October. The finished version will include 300 new and enhanced features, and it will cost $129.

Updated Desktop

The redesigned Desktop does away with the familiar blue background design that Jobs said users almost never employ. The background he showed during the keynote featured blades of dew-covered grass, but Apple fully expects users to pick their own images. To that end, Jobs said that Apple updated the Desktop to better accommodate people's digital photos: the menu bar is now semitransparent, and the Dock is reflective (and somewhat three dimensional).

More significantly, the redesigned Dock in Leopard introduces Stacks—a collection of folders that Apple sees as a way to clean up desktop clutter. Files are collected in the Stacks for rapid access; click on a Stack in the Dock, and the files and folders fan out or appear in a grid. Clicking on one of those icons instantly launches the relevant program or file. You create Stacks by dragging any folder or group of items to the Dock. As part of Stacks, the new Desktop also features a dedicated Downloads folder.

Other enhancements in Leopard's Desktop include a consistent look for windows and a more prominent indication of the active window.

New Finder

OS X 10.5's Finder features a new sidebar that's reminiscent of the Source list in iTunes. The sidebar is organized into Devices, Shared, Places, and Search For headers; a clickable triangle next to each header lets you close a section when you're not using it.

IMAGE COURTESY OF APPLE

In addition to the Icon, List, and Column views in the Finder, Leopard has an iTunes-like Cover Flow view. The Finder's Cover Flow view allows you to scroll through images of Microsoft Word documents, QuickTime movies, iPhoto pictures, and other files, much as you would album covers in iTunes. In Cover Flow view, you can advance through multipage documents or play QuickTime movies by clicking on the relevant file.

Finder searches are also streamlined, thanks to prebuilt searches grouped under the Search For header in the sidebar. In addition to having access to prebuilt searches, you can also assemble your own.

Leopard's Finder allows Spotlight searches of other Macs, Windows machines, and servers on a network, to make browsing shared files easier. And with a .Mac account and the new Back To My Mac feature, you can search and retrieve files stored on other computers, even when you're on the road.

Spotlight searches in the Finder incorporate the enhancements to the built-in search functionality that Jobs outlined last August. Those enhancements include the ability to use Boolean logic to narrow search results with AND, OR, and NOT commands. You can also search for exact phrases in Spotlight by using quotation marks, as well as search by using dates, ranges, absolute dates, and simple calculations.

Quick Look You can preview a file without launching its application.

iChat Backgrounds New effects in iChat make video chats a lot more fun.

Other Features

Jobs's OS X 10.5 demonstration showed a brand-new Leopard feature called Quick Look. The feature offers live file previews without requiring users to launch applications. Quick Look's previews can be multipage and are available in full-screen views. By the time Leopard ships, Quick Look will work with text files, images, movies, PDFs, and Microsoft Word and Excel documents; Apple says that developers will be able to expand Quick Look to work with other file types because it's based on a plug-in architecture.

Leopard also includes Safari 3, a new version of Apple's Web browser (see "Apple Brings Safari to Windows").

Other Leopard features Jobs highlighted during his hour-long demonstration were recaps of capabilities he first previewed at WWDC in August 2006, with a few bits of new information. Among those discussed was Boot Camp, Apple's application for installing and running Windows on an Intel-based Mac; as announced last August, Boot Camp will be included with Leopard and won't require users to burn driver CDs as part of the installation process. Boot Camp will also include a quicker way to switch between OS X and Windows, without having to restart your computer each time.

(Although not mentioned in the keynote, Apple also released information about several other features, including DVD Player and Front Row—see macworld.com/2890 for more details, and go to macworld.com/2892 for our Leopard FAQs.)

Philip Michaels is the executive editor of Macworld.com.

Apple Brings Safari to Windows

Apple expanded its presence on the Windows platform by releasing a Windows-compatible public beta of its Safari Web browser. The final version, Safari 3, will be included with Mac OS X 10.5, and will be a free download for users of OS X 10.4, Windows XP, and Windows Vista in October.

According to figures cited by Apple CEO Steve Jobs, Safari currently captures about 5 percent of the browser market; Microsoft's Internet Explorer (IE) commands 78 percent of the market, and Mozilla's Firefox has a 15 percent share.

"The Mac's market share is great, but we want to grow, and, in order to do that, we have to create a version of Safari on Windows," Jobs told WWDC attendees. "And that's exactly what we've done."

Apple promises a speedy version of Safari for Windows. The company says that Safari performed twice as fast as IE in an iBench HTML performance suite test—2.2 seconds to IE's 4.6 seconds. The Apple browser performed similarly on iBench's JavaScript test, completing the suite in less than a second compared with IE's time of 2.4 seconds.

Other changes in the latest version of Safari include an integrated Find banner that resides below the Bookmarks bar, the ability to drag and drop tabs as you can with bookmarks, and resizable text fields. Once final, Safari 3 will also feature a toolbar button that activates the Web Clip feature for creating Dashboard widgets. You can read more about Safari 3's new features in our first look of the browser beta at macworld.com/2891.

Safari joins a growing number of Windows-compatible Apple programs; the company also produces versions of its iTunes music application and QuickTime multimedia player for Windows.—PHILIP MICHAELS

SMART PHONES

Developers Get Some iPhone Access

Web applications will work through Safari

In addition to getting another preview of Mac OS X 10.5, developers at Apple's WWDC received some welcome news from Apple CEO Steve Jobs—they'll be able to write applications that will run on the company's highly anticipated iPhone.

Jobs ended his 90-minute keynote by inviting Scott Forstall, Apple's vice president of iPhone software, to show what Jobs called an "innovative new way to create apps for [the] iPhone."

To maintain the security of the iPhone, Apple decided not to let developers write standard applications for the device; rather, they'll create Web 2.0 applications that run within the version of Safari included on the iPhone. Those Web apps can integrate with the iPhone's built-in services, giving them access to making a call or looking up a location in Google Maps. Since most of the application code runs on a server, Apple said, the software is both secure and easy to update.

For his demo, Forstall showed an Apple Directory Web application the company wrote that taps into an internal LDAP database.—**JONATHAN SEFF**

GAMES

EA Makes Play for Mac Gamers

Company promises its support

Taking the keynote stage with Steve Jobs, Electronic Arts (EA) cofounder and chief creative officer Bing Gordon told attendees of Apple's WWDC that the video and computer game publisher would return to the Mac beginning in July, with four of its most popular games: Command & Conquer 3 Tiberium Wars, Battlefield 2142, Need for Speed Carbon, and Harry Potter and the Order of the Phoenix. In August, EA will ship Madden NFL 08 and Tiger Woods PGA Tour 08. The plan is for EA to release the Mac versions of all of these games simultaneously with their PC and console counterparts.

Because these games are coming to the Mac by way of TransGaming Technologies' Cider, they will run only on Intel-based Macs.—**PETER COHEN**

NEWS IN BRIEF

MacBook Pros Get Santa Rosa Chip Set

On the heels of an update to its MacBook line (see our review on page 40), Apple has also overhauled its MacBook Pro laptops. The latest MacBook Pros feature the "Santa Rosa" chip set that Intel introduced in May. This chip pushes the laptop's frontside bus to 800MHz, up from 667MHz in earlier models, and lets the MacBook Pro accommodate as much as 4GB of RAM.

Other changes to the MacBook Pro line include a new graphics processor from Nvidia that replaces the ATI Mobility Radeon graphics chip that shipped in previous models. The two 15-inch MacBook Pro models feature mercury-free, LED-backlit displays that consume less power. Buyers of 17-inch MacBook Pros have the option of ordering a display with a higher resolution—1,900 by 1,200 pixels—for an extra $100.

There are three MacBook Pro configurations: a 15-inch 2.2GHz model with a 120GB hard drive, for $1,999; a 15-inch 2.4GHz offering with a 160GB hard drive, for $2,499; and a 17-inch 2.4GHz version with a 160GB hard drive, for $2,799. See macworld.com/2881 for Macworld Lab benchmarks.

Adobe Tells FreeHand Users to Move to Illustrator

The end is nigh for FreeHand MX, the venerable vector-based illustration program that became the property of Adobe after the company bought Macromedia in 2005. Adobe has told FreeHand users that it won't develop any new features for FreeHand, which was last overhauled four years ago, nor will it deliver patches or updates for new operating systems and hardware. To ease the transition, Adobe has created an FAQ (see it at macworld.com/2854); it will also offer an upgrade path to the newly released Illustrator CS3, for $199.

IPHONE AND MACBOOK PRO COURTESY OF APPLE

PRODUCT WATCH

HARDWARE

Exilim Zoom EX-Z1200, from Casio (www.casio.com): This 12.1-megapixel camera with a 3× optical zoom lens features face-detecting autofocus technology ($400).

ToughTech XE mini, from WiebeTech (www.wiebetech.com): This pocket external hard drive enclosure, which is available in capacities up to 160GB, features external Serial ATA and USB 2.0 interfaces in a single port, as well as two FireWire 800 interfaces ($120 to $280, depending on capacity).

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When Steve Met Bill

Side by Side No, that's not a Photoshop trick—Steve Jobs and Bill Gates appeared alongside each other during May's D: All Things Digital conference in Carlsbad, California. The two tech heavyweights reminisced about the past while looking ahead to the future of computing. (Read *Macworld*'s account of the Jobs-Gates summit at macworld.com/2862.)

Jobs on aging along with Gates:

"When Bill and I first met each other, we were both . . . the youngest guys in the room, right? . . . And now when we're working at our respective companies, I'm the oldest guy in the room most of the time."

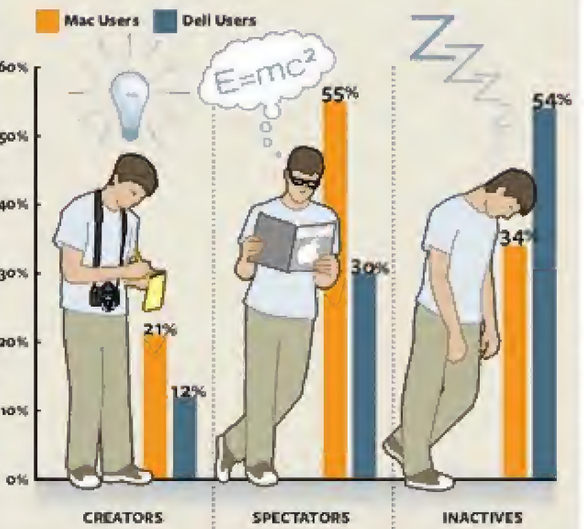
Gates on what he envies about Jobs:

"I'd give a lot to have Steve's taste . . . I'd see Steve make a decision based on a sense of people and product that is even hard for me to explain. The way he does things is just different, and I think it's magical."

TECH TRENDS

Web Creators

A new Forrester report divides the U.S. online population into six groups according to their social participation on the Web. More than one-fifth of those classified as Creators—people who blog, publish Web sites, upload videos, or participate in other content-creation activities—own Macs, while only 12 percent own Dell computers. The majority of Spectators own Macs, while the majority of Inactives own Dells. For the complete chart, see macworld.com/2821.—MARYANN JONES THOMPSON



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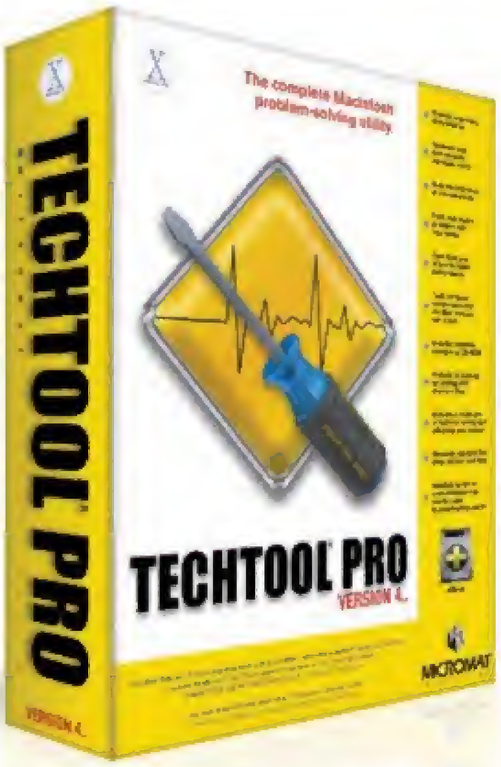

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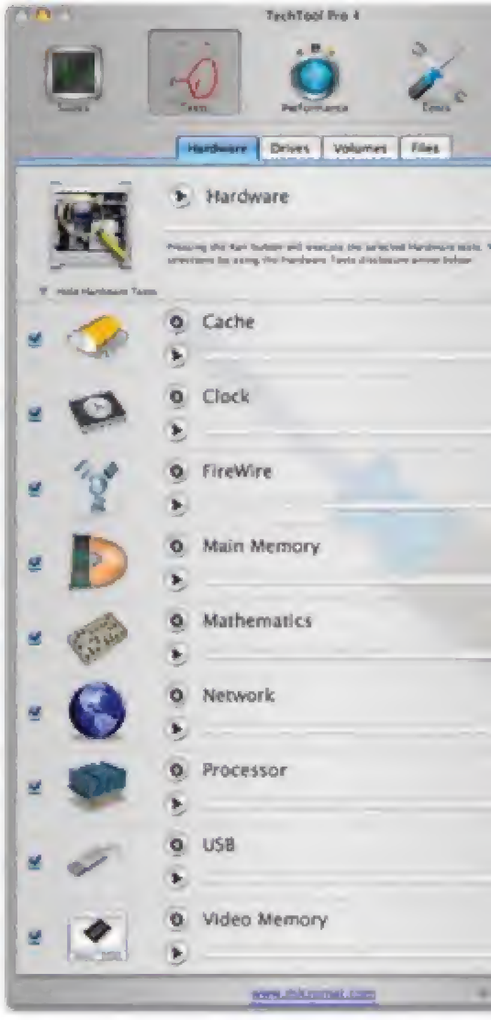

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DISPLAYS

When 'Millions' of Colors Equal 262,144

Lawsuit raises questions over display-industry claims

Two Mac users have filed a class-action lawsuit against Apple that contends the company misrepresents the amount of colors its laptops can display. Specifically, the suit alleges that MacBooks and MacBook Pros are capable of displaying only the illusion of millions of colors through a technique called *dithering*, in which colored pixels from within the available palette are blended together to approximate other colors.

Color Complaints In dithering, pixels from within the available palette are blurred together to create the appearance of another color.

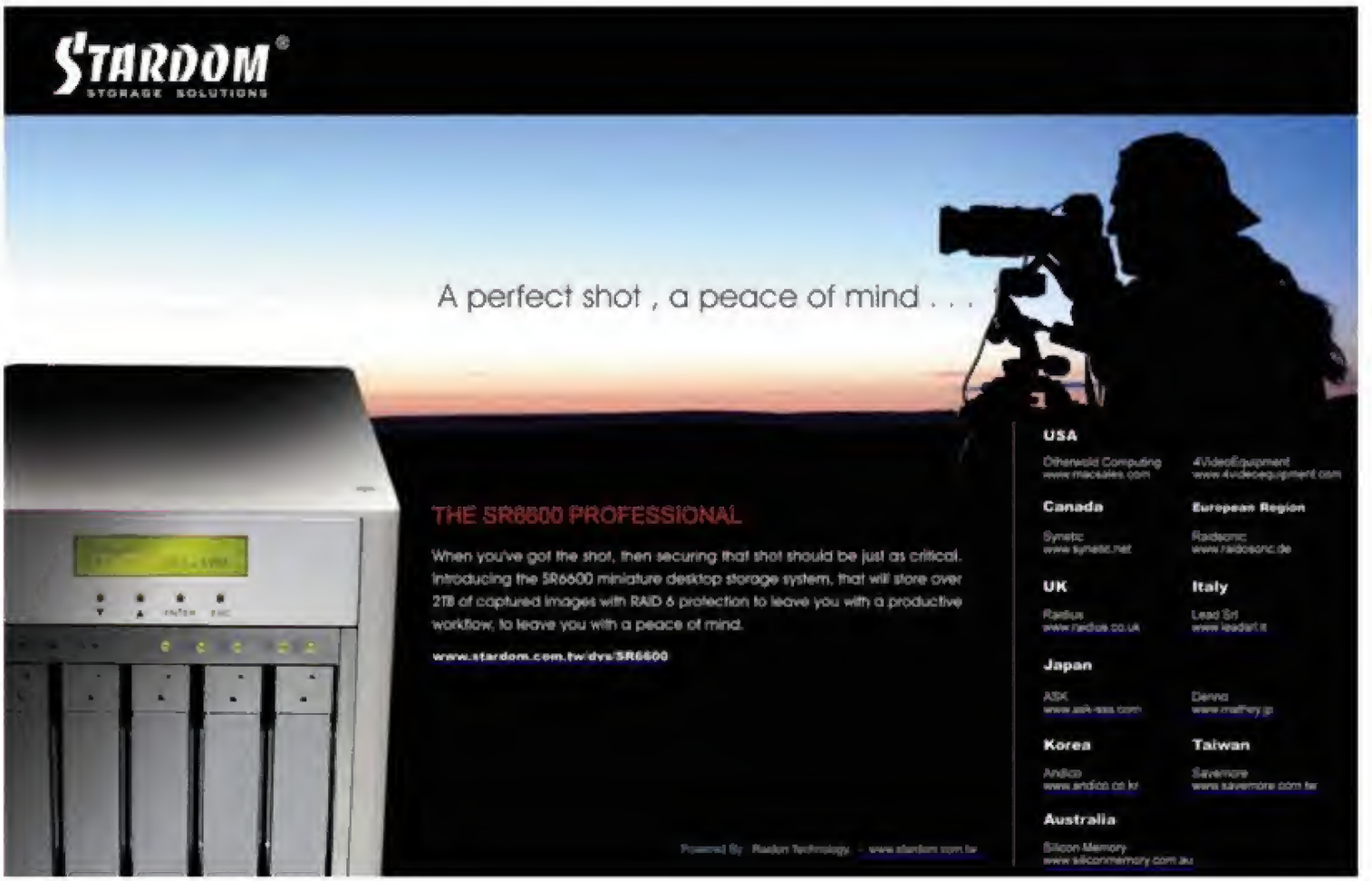
The merits of the case will be decided in due time; however, the dispute has raised some interesting questions about how hardware makers—including Apple—market their displays.

Upon hearing of the lawsuit, the first thing I did was look up the stats on my own MacBook. It uses an LG Electronics LP133WX1-TLA1 display, which, according to LG Philips, is 6 bit and capable of displaying 262,144 colors. Contrast that with the tech specs Apple lists for the MacBook: a 13.3-inch (diagonal) glossy TFT wide-screen display with support for millions of colors.

An article on About.com (go to macworld.com/2855) explains that it's a standard industry practice to say that 6-bit displays support 16.2 or 16 million colors, even though they can't actually display those colors without dithering.

Many Mac users are extremely color-sensitive design and graphics professionals. Even if it turns out that the display industry's standard practice *is* legitimate, Apple owes its customers a more-thorough disclosure of what they get when they buy an Apple computer or display.—**JASON SNELL**

ILLUSTRATION BY STEVE STANKIEWICZ



Searching for MagSafe Accessories

Apple has yet to license its connection technology to third-party developers

One of the niftiest features introduced when Apple rolled out its Intel-based laptops in 2006 was the MagSafe power connector (shown here)—the magnetic ring surrounding four small power nubs at the end of the notebook's power cable. If you move the connector close to your laptop, the magnetic attraction will snap it into place. Even better, if you trip over your power cord, the MagSafe connector comes loose, saving your MacBook a trip into orbit.

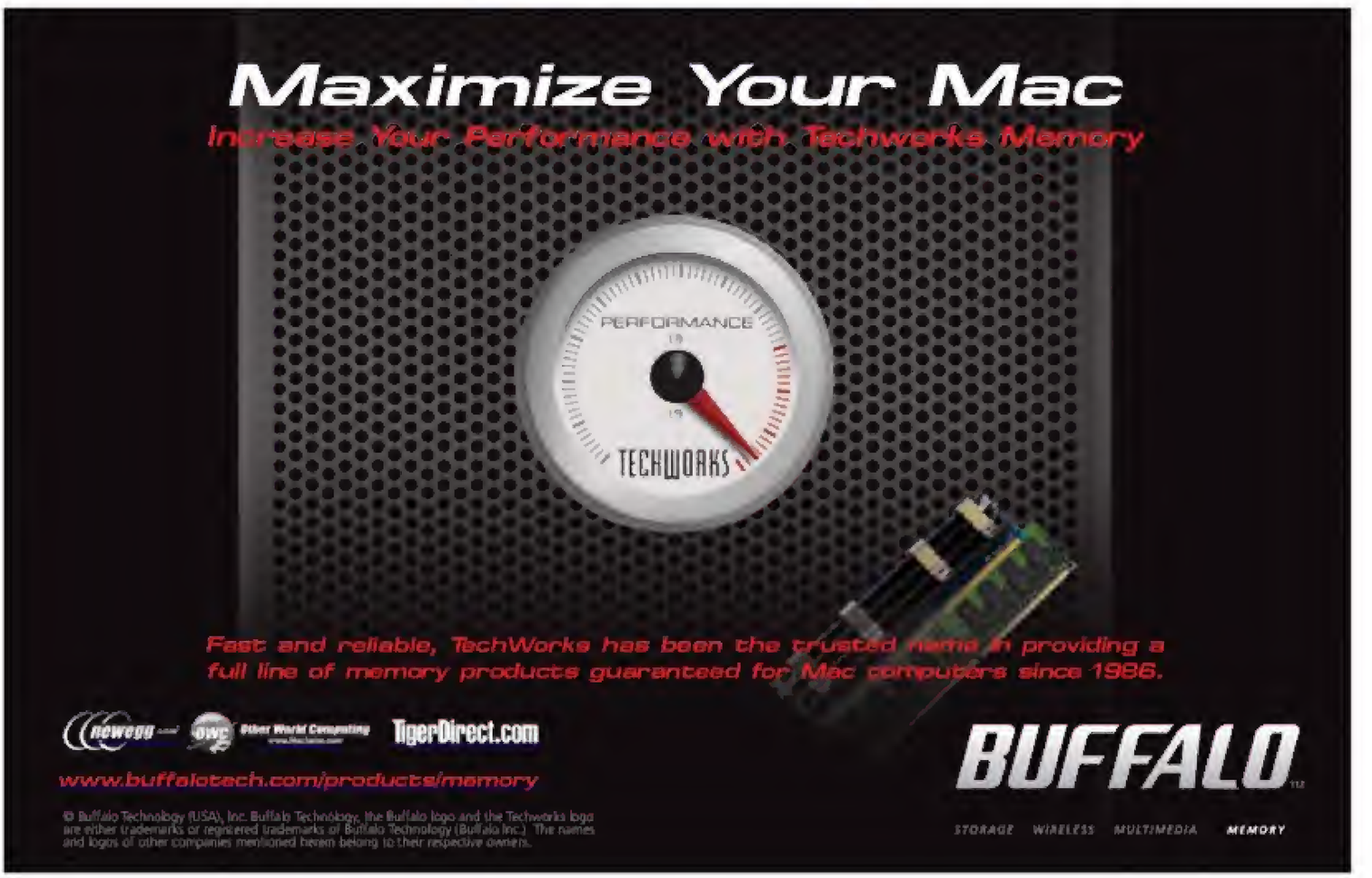
There's only one problem with Apple's move to this new connector: There aren't any third-party MagSafe accessories.

For example, consider the Thin & Light power adapters from Kensington (us.kensington.com) or the juice70 from iGo (www.igo.com). These products, through interchangeable tips, let you use a single power adapter with several devices (or even multiple devices simultaneously). And they work with multiple power sources—AC wall outlets, car accessory jacks, and airline-seat DC power ports. But these products aren't compatible with the MagSafe connectors on MacBooks and MacBook Pros.

Why the dearth of third-party MagSafe products? Because the MagSafe connector is a patented technology and, according to a Kensington representative, Apple has yet to license the use of that technology to other vendors. Apple has confirmed that stance in the past to *Macworld*, but did not respond to our more recent questions on whether that policy has since changed.

Interestingly, iGo's Web site now features a page for a product now in development dubbed "notebook tip S32" that supposedly offers compatibility with the MacBook and MacBook Pro. (See for yourself at macworld.com/2853.) Could this mean the arrival of a third-party MagSafe accessory after a year and a half of slim pickings? Stay tuned.—**DAN FRAKES**

PHOTOGRAPH BY PETER BELANGER



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• 61/49/32 velocity-sensitive keys with aftertouch
• "dynamic mapping"–intelligent assignment of controls
• 50 fully assignable controls, including dedicated transport buttons
• new, unique crossfader feature for use with dj apps & notiondive.tokyo
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capture creativity
www.rolandus.com/edirol

MUSIC

DRM-Free Music Arrives at iTunes

What you need to know about iTunes Plus

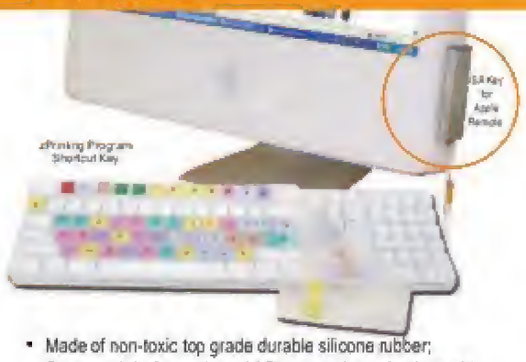
In April, Apple and EMI Group vowed to put DRM-free (digital rights management) versions of the record label's entire catalog on the iTunes Store. In June, the companies delivered with the launch of iTunes Plus, which offers DRM-free tracks encoded at a higher bit rate and priced for 30 cents more than the 99-cent tracks offered elsewhere at the Store. Here's what to expect from the new service.

Updated iTunes Although you'll spot an iTunes Plus link at the Store no matter what version of iTunes you use, you must upgrade to iTunes 7.2 to buy iTunes Plus tracks. Once you've updated, the link will take you to an iTunes Plus page, which holds What's Hot and Featured Albums boxes similar to those on the Store's main page, as well as Top Albums and Top Songs columns. The page also contains a Genre pop-up menu, from which you can choose assorted genres that will change the contents of the What's Hot and Featured Albums boxes.

iTunes Plus Preference When you click on an album on the iTunes Plus page, you're asked if you'd like to set your iTunes Plus preference. If you click on the iTunes Plus button in the dialog box, you'll always be shown the iTunes Plus version of a music track or music video if one is available. With the iTunes Plus preference enabled, you aren't shown the less-expensive, protected version of the track; with iTunes Plus disabled, you aren't provided with links to the DRM-free tracks unless you click on the Learn More link and, in the subsequent window, click on the iTunes Plus button to enable the iTunes Plus preference. To turn it off, go to your iTunes Store account page, where you access the option via a Manage iTunes Plus button.

Downloads Downloading an iTunes Plus track or album is almost exactly the same as downloading protected tracks—the one thing you can't currently do is gift unprotected music as you can with the Store's protected music. A small iTunes Plus caption appears just above the Buy Album button on an album's page, and a plus sign (+) followed by the $1.29 price sits to the left of each track's Buy Song button. The resulting files are encoded at a bit rate of 256 Kbps and are tagged with an .m4a extension. (This is the extension for unprotected AAC files, versus the .m4p extension appended to the Store's protected AAC files.) A four-minute track comes in at just over 8MB.

Upgrading Past Purchases When you're logged in to the Store, click on the iTunes Plus link, and you should see an Upgrade My Library area in the upper right corner of the resulting iTunes Plus window. This allows you to upgrade compatible content—that is, other EMI music—to an unprotected form. You can upgrade an album for 30 percent of the current album price. Upgrades to individual music tracks cost 30 cents per track, and upgrading music videos costs 60 cents per video. You can't choose to upgrade individual tracks or albums—this is an all-or-nothing option for your entire compatible library. —CHRISTOPHER BREEN



- Made of non-toxic top grade durable silicone rubber;
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- Regularly wash helps to reduce the spread of germs and virus;
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zCover zPrinting Program Shortcut key

Material: Silicone Rubber
Programs: Apple Final Cut Pro, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Dreaweaver, Adobe Flash, Digidesign Pro Tools, Adobe After Effects, Adobe Premiere Pro· Adobe Premiere 6.5 , Autodesk AutoCAD· Autodesk Maya, Cakewalk Sonar , Avid Xpress Sony Vegas, Steinberg Cubasse/Nuendo
Compatibility: Short Cut Program Keyboard skin for Apple Desktop Keyboard & Apple Wireless Keyboard
(* Not compatible with previous Apple Keyboard.)

zCover has created the hardware for your software. Innovating design and quality material production has allowed zCover to make the break through in the production of silicone keyboard covers. Known to zCover as **zPrinting**, zCover is the first one in the industry to be able to successfully print precisely in a numerous colors onto their high-quality silicone. This breakthrough has lead to the unique and innovating collection of zCover protective covers. The program short cut covers the newly released Adobe Creative Suite 3 Design Premium covers provide the ultimate in keyboard support including: Adobe Photoshop CS3, InDesign CS3, Illustrator C3, Flash CS3 and Dreamweaver CS3.

The exciting zCover technique **zPrinting** allows for endless possibilities allowing the covers applied in numerous roles such as protection, education, marketing and many more.

zCover TypeOn APKNAU / APKNBU Preprinted series for Apple Notebook Keyboard

Material: Silicone Rubber
Color: zPrinted Ice Clear, Ice Blue , Ice Green, Ice Pink Ice Purple, Ice Yellow, Black, Glow-in-Dark-White
Compatibility:
APKNAU for Apple MacBook Pro, Apple iBook & Apple PowerBook
APKNBU for new Apple MacBook

zCover TypeOn pre-printed Language Keyboard protector is unique in having pre-printed letters on the cover, the layout of which perfectly coincides with that of the standard Apple Notebook US English Keyboard. With the protector snugly fitted to your keyboard, you won't be squinting again struggling to find the right key!

Original Ice Clear Series Keyboard Skin | Preprinted Ice Clear Series Keyboard Skin

zCover TypeOn APKD for Apple Desktop Keyboard

Material: Silicone Rubber
Compatibility: for Apple Desktop Keyboard & Apple Wireless Keyboard
(* Not compatible with previous Apple Keyboard.)

zCover iSA Key for Apple Remote

Cases Material: top grade silicone rubber
Case Color(s): ice clear, blue, black, pink, grey, purple, glow-in-dark white
All over protection rate: 98%
Access to click wheel: Yes, Integrated ultra thin Click Wheel protective skin
Lanyard Includes in retail pack: Yes

zCover leads the way in manufacturing a high quality product that is always ready for the ever changing market of technology. Each zCover iSA Key case comes with a zCover lanyard. Our full line of iSA Key cases boast of a state of the art. Multicolour choice gives you a way to identify your Apple Remotes for iPod dock, Apple TV, Mac Mini , Apple laptop or iMac around your house. You are going to love our glow-in-dark iSA Key. Find it in DARK!

zCover iSA Key for Apple Remote protects almost 100% surface of Apple remote. It was crafted from non-toxic, durable high-grade silicone rubber gives your stylish look and a better protection.

- Side-grip-dots give your Apple Remote a stylish look and a better grip.
- Magnetic adherence function works perfect with Apple Remote in iSA key.
- Removable zCover lanyard, one of the best value add up to iSA Key.
- Integrated Sensitive Ultra-thin Click Wheel Protection Skin. It protects entirely Click Wheel from dust, dirt, moisture, and liquids, only 0.6mm! even thinner than our fingertip skin! This is a great protection feature and it is very sensitive to the touch!

Removable zCover lanyard

Magnet works

Glow-in-dark

A stylish look and a better grip

You can clean your cover using warm, soapy water. Lather the silicone cover, rinse thoroughly, pat down extra moisture if desired and allow to air dry.

Macworld AWARDS 2006 Nomination

zCover iSA silicone cases have been nominated by Macworld Awards 2006 as editor's choice in the iPod Accessory Category. As the Only iPod Protection Case that has so far won such a nomination, our iSA series will be the best solution for the iPod and Mac.

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Macworld AWARDS 2007 NOMINATION

zCover Universal Window Clip Stage with zCover gloveOne for the first iTune Cell Phone

Macbook with zCover Adobe Photoshop Shortcut Key and iSA Key for Apple Remote

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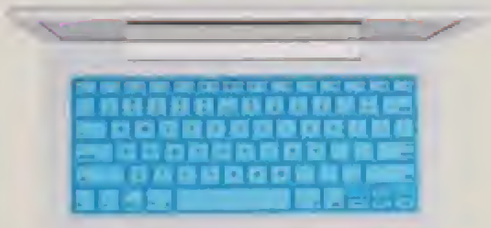

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Tera Patricks, Mac360.com

"NoteBook is now open on my desktop all the time."
Shawn King, Host/Exec. Producer, Your Mac Life

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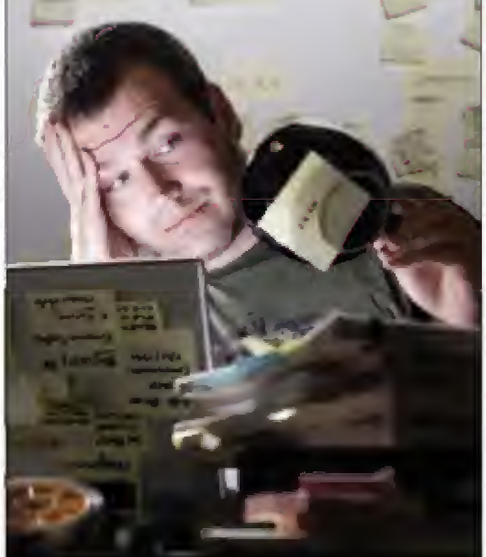

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★★★★★ Macworld UK
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MUSIC

Microsoft: All Your iPods Belong to Us

Company encourages purging Apple's players

Microsoft may be turning to more-inventive ways to get people to try the Zune MP3 player, its would-be iPod killer. In an article that you can read at macworld.com/2858, IDG News Service's Elizabeth Montalbano reports that the Zune team at Microsoft's headquarters has set up an "iPod Amnesty Bin" where employees can drop in iPods they don't want to use anymore. MSNBC.com employee Rex Sorgatz took a picture of the bin and posted it at the Flickr photo-sharing site.

Whether a morale-boosting joke or a desperate attempt to get someone—*anyone*—to swap the popular iPod for the less-than-hot-selling Zune, it got us thinking about other exchange programs Microsoft might set up:

- A program in which Microsoft employees can trade in *The Pirates of Silicon Valley* DVDs for a VHS tape of the cast of *Friends* extolling the virtues of Windows 95.
- An exchange window where employees can swap dingy old quarters for two shiny new nickels.
- An amnesty program where Microsoft employees can surrender all their copies of the Steve Ballmer "Developers!" video, no questions asked.
- An 800 number that open-source-software users can call up to receive a demand for royalty payments from Microsoft's legal department.
- A mail-in program where frustrated Windows users can turn in older versions of Microsoft's operating system for a version of Mac OS X (Tiger) that will arrive on an installation disc labeled Vista.—**PHILIP MICHAELS**

WIDGET OF THE MONTH

iStat nano

Looking for a simple way to view your Mac's vital stats? iSlayer's iStat nano (payment requested) is a compact and easy-to-read widget that gives you just that. You can quickly view CPU usage, memory usage, disk space, network addresses and traffic, and more (islayer.com).—DAN FRAKES

PHOTOGRAPH BY REX SORGATZ (FLICKR.COM/PHOTOS/REX)

PRODUCT WATCH

SOFTWARE

CrossOver Mac 6.1, from CodeWeavers (www.codeweavers.com): This Windows-compatibility program for Intel-based Macs adds the ability for Microsoft Outlook users to work remotely using RPC over HTTP ($60).

Skype 2.6 for Mac, from Skype (www.skype.com): This voice-over-IP communication program adds a Call Transfer feature for transferring an ongoing call to another Skype user over a contact list (free).

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GAMES

StarCraft II Headed to the Mac and PC

Legendary game slated for release

StarCraft II, the sequel to the legendary game, is in development at Blizzard Entertainment. And unlike with the original game, Mac users won't have to wait while their PC counterparts vie for control of planetary surfaces. The Mac version of StarCraft II is expected to come out at the same time as the PC edition.

In StarCraft II, players reprise their roles as leaders of human Marines, vile alien Zerg, or enigmatic alien Protoss battling for interstellar domination. A new 3-D graphics engine, a story line that picks up where StarCraft's Brood War expansion pack left off, new competitive multiplayer features, and full map-making and scripting tools promise to keep avid gamers busy for hours on end.

What's unclear at this point is a release date; Blizzard hasn't announced one. The company says that the game has been in development since late 2004, so it seems likely that StarCraft II is quite far along.—PETER COHEN

GAME BUZZ

Aquaria

Ambrosia Software has announced plans to publish a Mac version of Aquaria. The game was the winner of the grand prize at this year's Independent Game Festival Awards, part of the Game Developers Conference. Aquaria is a side-scrolling underwater action game in which you take control of Naija, who unearths the history of her home and goes on a quest to discover the fate of her people. Naija swims through a massive world teeming with undersea life; encounters hundreds of different plants and animals; and explores hidden caves, lost ruins, and more. Ambrosia hasn't revealed a release date or system requirements for Aquaria, but the company notes that the game will be Universal.—PETER COHEN

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Hot Stuff

What we're raving about this month

Célesta

I'm a fan of laptop keyboards—not necessarily their size, but their low-profile, scissor-switch keys. Moshi's new $120 Célesta is a full-size desktop keyboard with a laptop feel—and with an attractive design and good ergonomics, to boot. Available in black with black keys or silver with white keys, the Célesta's sturdy body is made of brushed aluminum. It includes a full complement of Mac-specific keys and two USB ports; a clear-acrylic section at the top uses LEDs to display the Moshi logo and several indicators (such as Caps-Lock). The Célesta is also among the slimmest keyboards I've seen—it's less than one inch high at its thickest point. In fact, the front of the keyboard is nearly flush with your desk, so you can use the desk itself as a wrist-rest while maintaining an ergonomic typing position (the keyboard is tilted at a low 9 degrees; you can increase this to 15 degrees, using a flip-out stand on the bottom). An oddly located mute key—between the right-hand option and control keys—is my only real complaint (www.aevoe.com).—**DAN FRAKES**

HomeDock Music Remote

Fans of Digital Lifestyle Outfitters' HomeDock line will be excited by the company's new $130 HomeDock Music Remote. Connect the HomeDock iPod dock to your stereo (or TV), and you can pump your music player's tunes throughout your house, using a flashy, shiny remote with its own display to control playback. The remote works from as far as 150 feet away, and a Jukebox feature lets you queue as many as ten songs from your library on-the-fly (it's akin to iTunes' Party Shuffle feature). The device works with fourth- and fifth-generation iPods, all iPod nanos, and the iPod mini (www.dlo.com).—**DAN MOREN**

DataTraveler Reader

There are plenty of SD card readers in the world. But Kingston Technology's sleek, $35 DataTraveler Reader also doubles as a 2GB USB 2.0 flash drive, so you can get photos off your camera and keep them backed up with the same device. The DataTraveler Reader supports MMC, SD, and SDHC cards. And because the flash drive and memory card show up in the Finder as separate devices, it's easy to transfer files from one medium to the other (www.kingston.com).—**KELLY TURNER**

Jack OS X 0.74

What makes multitrack audio editing great is the fact that it lets you deal with each instrument or voice separately, without affecting the others. That's what makes the free Jack OS X so cool. It's a low-latency audio server that lets you add virtual ports to your audio programs, giving you the ability to configure software such as Apple's Logic or GarageBand to use, say, 16 ports instead of the two ports available with the default Mac setup. So what can you do with 16 ports? I regularly use Jack to record each part of a virtual drum kit on its own channel in Logic, giving me complete editing freedom (www.jackosx.com).—**JIM DALRYMPLE**

Trey

Gaming chairs have been around for a while, but they're rarely well suited to general office work. Sauder Manufacturing believes that it has found a balance between the two in a new offering called Trey, which comes in various colors ($239 when clad in fabric, or $269 in faux leather). At first glance, Trey looks like a normal desk chair. It rests on a telescoping base that adjusts for height and swivels 360 degrees, and it offers tilt and tilt-lock controls. But a release latch lets you pull the seat off the stand, and the seat and back frame then become a stand-alone floor rocker-style chair (popular among gamers). Two built-in rails provide balance. When the seat is detached from the base, you can rest it on the floor and use it as a rocker to watch TV or play video games, while using the base as a stand for refreshments, for example, or as a place to put your laptop (www.treychair.com).—**PETER COHEN**

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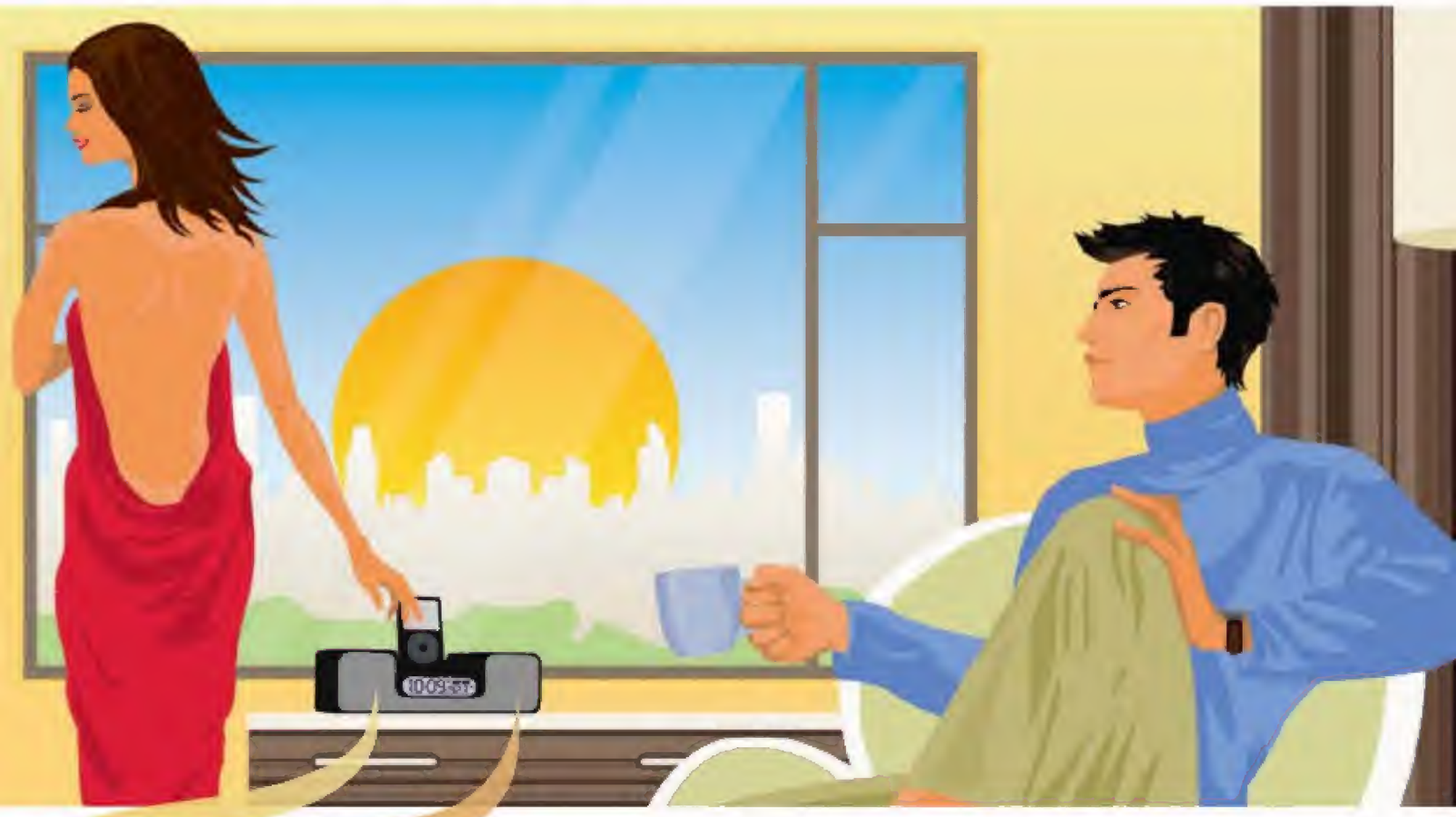

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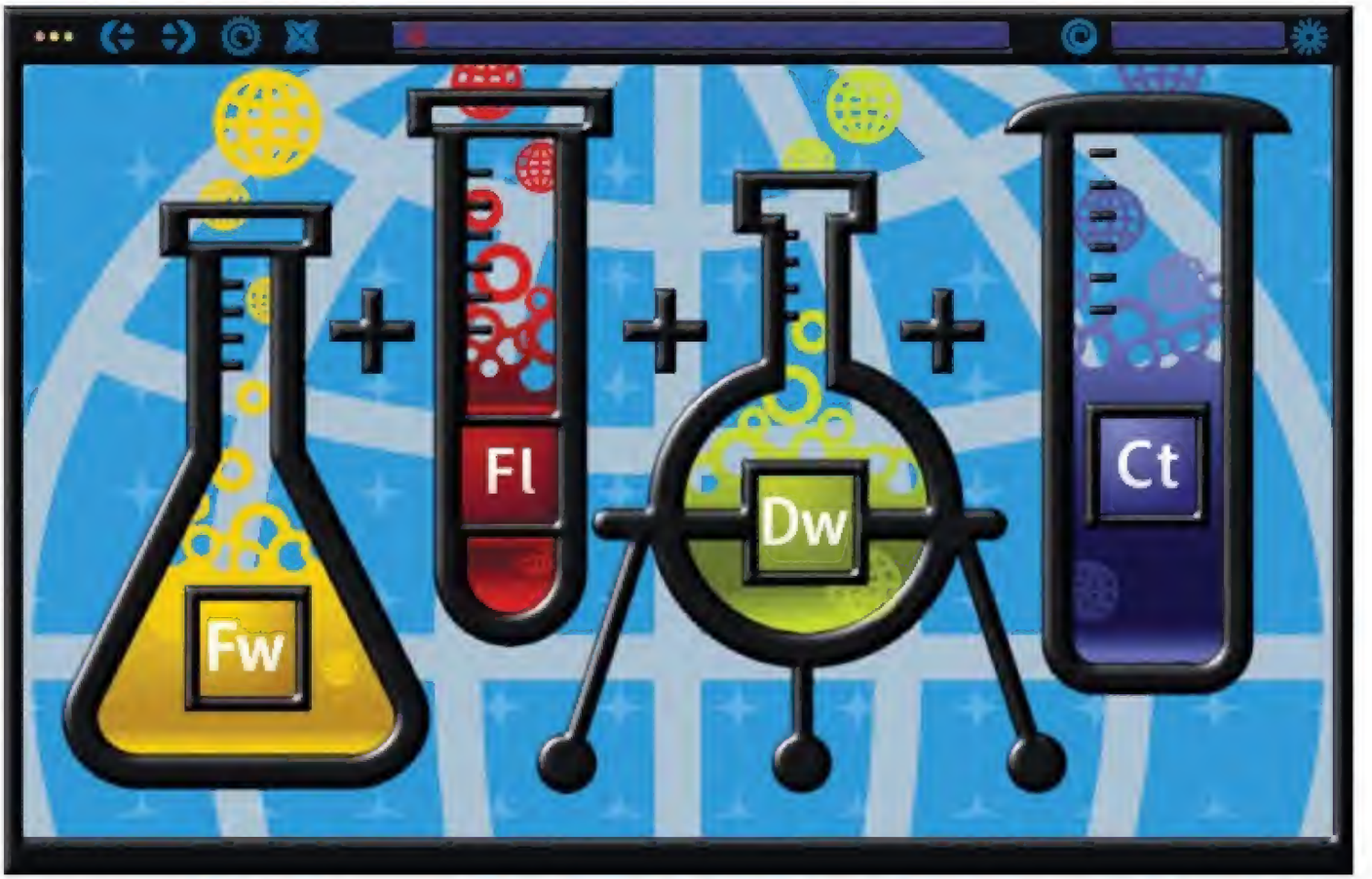
Reviews



Elements of Web Design

Adobe features Macromedia's Web tools in the CS3 package

Adobe is currently releasing a massive suite of print, Web, and video-production programs under the rubric of Creative Suite 3. Adobe CS3 is designed to be a complete set of tools for every type of Mac-based creative professional, with specialties for print, Web, and video. Last month, we reviewed the major CS3 design applications—Photoshop, Illustrator, InDesign, and Acrobat, as well as the new Photoshop CS3 Extended. This month, we turn our attention to the Web design programs: Dreamweaver, Fireworks, Flash, and Contribute, all formerly Macromedia programs.

Like the design programs, the Web applications are Intel native and are available in several bundles, including Web Standard ($999), Web Premium ($1,599), and Master Collection ($2,499). They're also available as stand-alone programs. While Adobe has tried to assemble all of these titles under a uniform interface, some Macromedia applications still retain much of their original identity—a relief to longtime users. Stay tuned for our reviews of the new Production Premium—Premiere Pro CS3, After Effects CS3 Professional, and Soundbooth CS3—in a subsequent issue.

Find It Online Longer reviews of these products are available on our Web site at the following addresses:

Dreamweaver CS3 macworld.com/2763
Fireworks CS3 macworld.com/2765
Flash CS3 Professional macworld.com/2764
Contribute CS3 macworld.com/2766

ILLUSTRATION BY GLENN AMITSUI

Dreamweaver CS3

Innovative tools and integration fortify upgrade **BY DAVID SAWYER McFARLAND**

Dreamweaver has always been a solid tool for creating and maintaining Web sites. The latest version builds on this powerful product by adding support for Intel processors, integration with Photoshop CS3 (♦♦♦♦; macworld.com/2757), and tools that simplify CSS (Cascading Style Sheets) design. It also expands into new territory by adding the Spry Framework for Ajax, a combination of technologies that include JavaScript, CSS, and HTML for building interactive user interfaces.

Universal at Last

Dreamweaver CS3 is the first version of the program to appear with the Adobe name; it's also the first version to run natively on Intel Macs. Running on an Intel Mac, Dreamweaver CS3 is more responsive than Dreamweaver 8 (♦♦♦½; macworld.com/0936) running in Rosetta; startup time is faster; typing feels quicker; and sitewide operations, such as updating templates and broken links, are speedier.

The Long and Winding Road

Dreamweaver CS3 has the same user interface as Dreamweaver 8 (this may be welcome news for longtime users who are accustomed to the Macromedia style). And Dreamweaver CS3 provides helpful integration with Photoshop CS3, offering a streamlined workflow for getting images from Photoshop into Dreamweaver. You can now copy a layer, a selection, or a slice from Photoshop and paste it directly into Dreamweaver. You can even drag a Photoshop file directly onto a Dreamweaver page. A new image-optimization window lets you apply compression settings in the program; the optimized image then appears on the Web page.

Dreamweaver CS3 also remembers the location of the original Photoshop PSD document so you can edit it for your Web page—but only if you're using Photoshop CS3.

This version of Dreamweaver includes Adobe's new Device Central. This program (which integrates with several other programs in the suite) shows how mobile devices display Web content. You can preview a Dreamweaver page in more than 200 mobile-device profiles; each profile simulates the display of a particular phone—but is accurate only for phones that use the Opera Mini browser.

Working with Widgets Spry widgets let you display lots of page content in a compact space—like the tabbed panels pictured here.

The New Web

One of the most significant additions to Dreamweaver is a set of tools for adding interactive elements to a Web page. Based on the Spry framework, these new tools go far beyond the eye candy of Dreamweaver's old timeline animations, and they're a significant improvement on the simplistic JavaScript produced by Dreamweaver 8's behaviors. Spry widgets—prebuilt blocks of code that you can insert into your pages—add helpful user-interface elements to a page; the Spry Menu Bar widget, for example, is a navigation bar that supports two levels of pop-up menus—the perfect way to cram a lot of links into a compact space. Form-validation widgets are coded to ensure that data is submitted correctly. Several other page widgets make it easy to present a lot of content in a small space; for example, the Tabbed Panels widget lets you place content into separate tabbed areas, each of which is revealed by clicking on a tab (see "Working with Widgets").

For people who do like eye candy, you can draw attention to your Web pages with Spry effects that fade out, shrink, grow, or shake an image or other page content. The Spry Data Set feature lets you take data from an XML file and display it in a table. People viewing the Web page can sort the table by clicking on column headers.

Dreamweaver CS3

♦♦♦♦½

PROS: Spry Framework for Ajax now included for enhanced site interactivity; Photoshop integration; easy-to-use CSS layouts.

CONS: Server behaviors and database tools need updating.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: $399; upgrade from version 8, MX 2004, and MX, $199

COMPANY: Adobe Systems, www.adobe.com

and they can even see detailed information about one item—all without downloading a new page from the Web server.

Solving CSS Woes

CSS is a Web designer's main tool for creating beautiful and functional Web sites that adhere to proper Web-coding standards. Unfortunately, CSS is also a confusing technology, and creating Web pages that look and work the same on Windows machines and Macs, and in various browsers, is often difficult. Dreamweaver CS3 adds two new features—CSS layouts and the Check Browser Compatibility feature—that cut down on trial-and-error.

CSS layouts contain the basic HTML and CSS necessary to create the most common page layouts, and they offer more options than the ones in Dreamweaver 8. Dreamweaver CSS layouts include all the necessary workarounds to make designs function well in all current Web browsers. The new Check Browser Compatibility feature scans a Web page for code that might not work correctly in a particular browser.

Getting Old

Dreamweaver CS3 doesn't offer any changes to the server-side tools that have made this application a favorite for designers who want Web sites that can interact with databases. It still doesn't have commands for solving common server-side problems such as uploading files, sending e-mail, and visual SQL (database) query generation.

Macworld's Buying Advice

With its accurate visual design, strong site-management features, and excellent CSS tools, Dreamweaver continues to be the premier Web design program. If you use an Intel Mac, are trying to ease the frustration of building CSS-based Web layouts, or want to add user-interface controls, Dreamweaver CS3 is a worthy upgrade.

David Sawyer McFarland is a Web consultant and the author of *Dreamweaver 8: The Missing Manual* (O'Reilly, 2006).

Fireworks CS3

Designing sites is easier than ever **BY CYNDY CASHMAN**

Adobe's first release of Fireworks as part of its CS3 suite of Web design programs includes many new features that will please graphic artists and Web developers.

Fireworks' new Pages panel makes it easy to create working prototypes of Web sites containing multiple pages, hyperlinks, hotspots, and rollover graphics within a single Fireworks file.

New hierarchical layers provide integration between Fireworks, Illustrator CS3 (★★★★½; macworld.com/2760), and Photoshop. The new Create Slideshow command—with its templates—is another welcome new feature.

The addition of 9-slice (or intelligent) scaling solves the problem of distortion when scaling an object. It lets you specify which parts of a bitmap or vector symbol you want to scale and which parts you want to preserve.

You can also now select an image and use the Copy command in Fireworks and the Paste command in Dreamweaver (★★★★½; page 35) to copy an image to a Web page. This method is more efficient than before. The new Common Library feature lets you create and store symbols—including button, graphic, and animation symbols—that you can add to any image.

Creative enhancements in Fireworks CS3 include a Color Palette for blending custom colors and Photoshop blend modes. The new Photoshop Live Effects dialog box allows you to add and edit Photoshop effects within Fireworks, though with less control than in Photoshop. The Extrude Paths tool is a helpful addition for creating simple 3-D objects.

Importing or opening Illustrator or Photoshop files in Fireworks CS3 isn't perfect. For example, Fireworks will convert a 16-bit RGB Photoshop file to a single-layer bitmap rather than maintaining its hierarchical layers. Opening and resaving the file as an 8-bit RGB Photoshop image before importing or opening it in Fireworks prevents this.

Fireworks CS3

★★★★½

PROS: Pages panel aids in prototyping; helpful hierarchical layers; intelligent scaling allows more control; Photoshop Live Effects gives you access to Photoshop effects.

CONS: Imported Photoshop files do not always maintain their layers.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

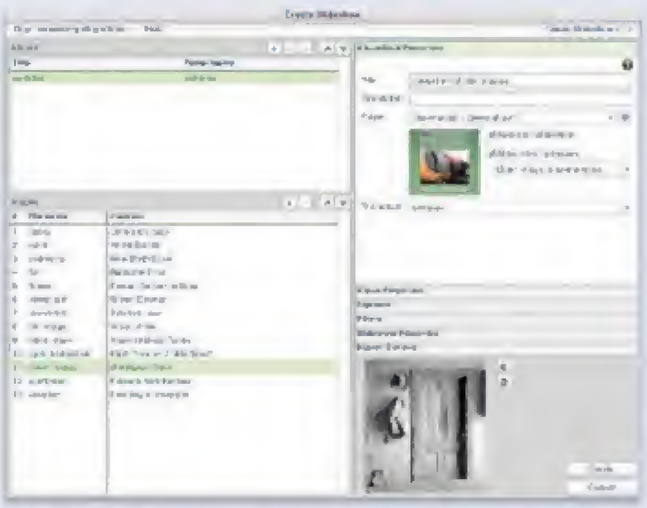
PRICE: $299; upgrade from Version 8, MX 2004, or MX, $149

COMPANY: Adobe Systems, www.adobe.com

Macworld's Buying Advice

Fireworks CS3 is the most ambitious upgrade to this program to date. The new Pages panel, improved integration with other Adobe CS3 applications, and the addition of intelligent scaling are reasons enough to upgrade.

Cyndy Cashman teaches Adobe Fireworks, Dreamweaver, Flash, Photoshop, and Illustrator at her company, Breakaway Interactive (www.breakawayinteractive.com).



Slick Slide Show Create a Flash- or Spry-based slide show, complete with captions, using the new Create Slideshow dialog box.

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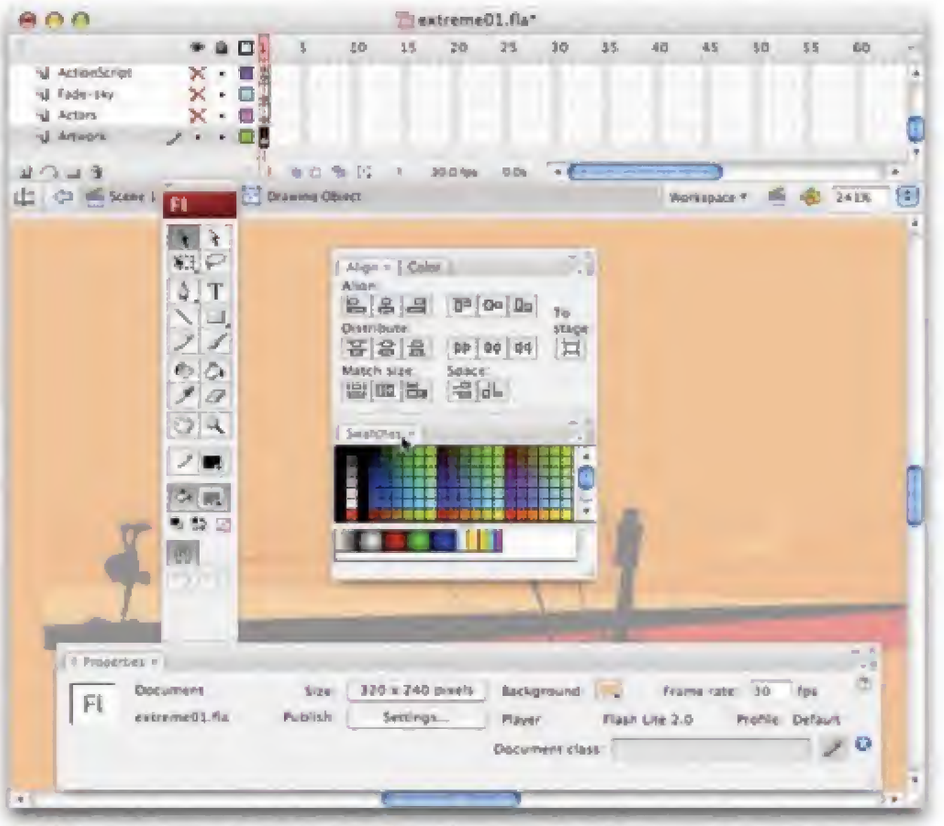
Flash CS3 Professional

Remarkable integration with Adobe's CS3 family **BY DAVID KARLINS**

Flash CS3 Professional, the first version of Flash released under Adobe's aegis, is arguably the most dramatically enhanced program in the new CS3 suite. Flash has two interacting components: ActionScript, Flash's powerful programming language, and the timeline-based stage, Flash's unique design environment for generating vector-based (scalable) animation. The most exciting new features in this release are on the design side, along with some fine-tuning in the coding environment.



Work Space Flash CS3 features a Tools panel, tabbed and stackable panels, and a Property inspector to create an inviting working environment for designers.

Interface Update

In Flash CS3, Adobe unveils a revamped interface, with features like object alignment, color, swatches, and scaling, all accessible through Illustrator-, Photoshop-, and InDesign-style panels. The Flash Tools panel shares icons and even keyboard shortcuts with its CS3 cousins, Photoshop and Illustrator. Other interface improvements include the ability to use your mouse's scroll wheel to scan through sets of layers in the timeline, and the ability to create tabbed panels.

Perhaps the most radical innovation in Flash CS3 is the vastly improved integration with Illustrator CS3. When competitors Macromedia and Adobe published Flash and Illustrator, respectively, the programs were estranged cousins, sharing the ability to create scalable, vector-based graphics, but not communicating with each other very well. Importing vector drawings from Illustrator into Flash was a clunky chore, with many elements of Illustrator artwork getting lost in the process. Now Illustrator and Flash are kissing cousins. Flash CS3 incorporates Illustrator's powerful Pen tool for drawing and editing curves. And, most significantly, you can now copy and paste directly from Illustrator into Flash or open Illustrator files in Flash—capabilities that will enable a much more efficient animation workflow.

Now, when Flash imports Illustrator artwork, it recognizes and preserves an impressive set of attributes, including layers, groups, symbols, anchor-point placements, gradients, and some effects (such as drop shadows). Clipping masks from Illustrator CS3 are maintained in Flash CS3, along with opacity (transparency) settings. Symbols are vector graphic objects that can spawn instances—additional generated artwork based on the original symbol that retains its basic characteristics. You can customize symbols to quickly populate a screen with graphic objects. And you can import Illustrator type into Flash as editable text, vector outlines, bitmap graphics, or a Flash movie clip.

The integration between Illustrator and Flash is, at this point, mostly a one-way street. In CS3, Adobe has focused more attention on making it possible to smoothly move Illustrator artwork into Flash: a typical animation workflow involves drawing illustrations in Illustrator, and programming and animating in Flash. Moving Flash artwork to Illustrator is less reliable, and I observed some glitches in vector artwork copied from Flash to Illustrator. The most advanced implementation of Illustrator-to-Flash workflow is the abil-

Flash CS3 Professional

4½

PROS: Improved design tools and accessibility for Photoshop and Illustrator users; enhanced integration with Illustrator and Fireworks; powerful preview tools for creating mobile-device interfaces; ships with Flash Video Encoder.

CONS: Standardized CS3 panels make learning curve easier, but creating Flash animation still requires study; expensive.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: $699; upgrade from Flash MX, Flash MX 2004, Flash MX Professional 2004, Flash Basic 8, and Flash Professional 8, $199

COMPANY: Adobe Systems, www.adobe.com

ity to create a symbol in Illustrator (such as a button) and then save it as a Flash movie clip.

With CS3, Adobe has introduced the ability to preview 9-slice scaling for vector graphics in Flash and to define 9-slice scaling in Illustrator CS3 and Fireworks CS3 (page 36). The 9-slice-scaling feature refers to a grid that you can superimpose over an object (a button, for example) that regulates how the object is scaled—vertically only, horizontally only, vertically and horizontally, or not at all. The 9-slice scaling that you define in Illustrator or Fireworks is now preserved when you copy and paste a symbol into Flash. This new capability could create improvements in workflow.

Encoding Flash Video

The Flash Video Encoder, packaged with Flash CS3, allows developers to convert video from Apple's QuickTime format to FLV (Flash Video) format. The Flash Video Encoder has a handy set of video-editing tools built in, including the ability to crop and resize video during the conversion process. And digital video developers using Apple's Final Cut Pro (macworld.com/2903) can encode to FLV format directly from that program.

Macworld's Buying Advice

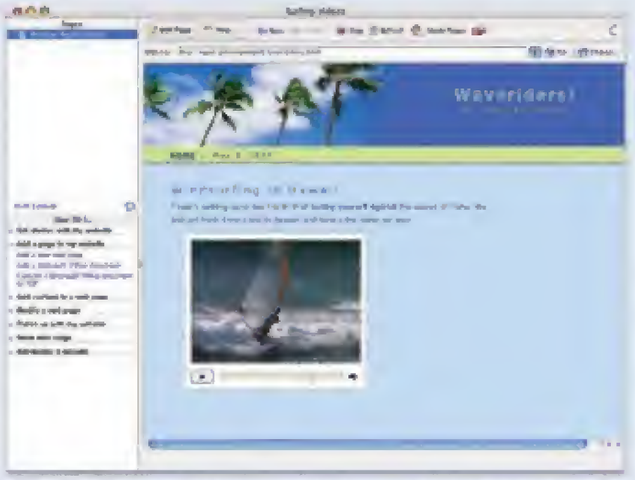
Flash CS3 Professional includes innovative new features for designers, particularly its integration with Illustrator CS3. The ability to import (or paste) Illustrator vector graphics into Flash is a major event in the evolution of animation design, and the ability to import Illustrator graphic symbols has the potential to radically improve animation workflow. The coding enhancements in this version are less radical, but there is something for everyone in this impressive Flash upgrade.

David Karlins is the author of the *Complete Idiot's Guide to Flash 5* (Alpha, 2000), and 20 other books on graphic and interactive Web design, including *Adobe Dreamweaver CS3 How-Tos: 100 Essential Techniques* (Adobe Press, 2007) and *Adobe Illustrator CS3 How-Tos: 100 Essential Techniques* (Adobe Press, 2007).

Contribute CS3

Nondesigners' Web page editor joins CS3 BY TOM NEGRINO

Adobe Contribute CS3 is unusual in that it allows you to edit existing Web pages, and even create new Web pages from templates—but you can't use it to create a new site from scratch. Contribute doesn't let users access a site's code. It allows them to change or add to a site's content—without the risk that they will accidentally break something.



Flash Video Contribute CS3 makes it easy to add page elements that reside elsewhere on the Internet, such as this Flash video, to your pages.

Contribute CS3 is at first glance a fairly small revision of the previous version, Contribute 4 (macworld.com/2307). The most significant changes in this upgrade take place behind the scenes, and they markedly improve performance. Contribute is now Universal, so it's much faster on Intel Macs, and common tasks feel more responsive on all Macs.

Contribute CS3 has Dreamweaver CS3's improved page-rendering engine, so it displays CSS on Web pages faster and with much better fidelity.

Contribute has always let you insert images, Flash animations, and video from your computer or your own Web server onto Web pages, but Contribute CS3 lets you insert these elements from anywhere on the Internet. Inserting an item adds a reference to it on your page, so it appears without your having to upload it to your server. New integration with Adobe Bridge CS3 lets you use Bridge to drag and drop images and other media onto your pages. Another new feature allows you to quickly add bits of HTML—called *snippets* in the program—to a page.

Unfortunately, the Windows version has features that are still missing from the Mac version, including easy incorporation of Microsoft Office documents and a useful editing toolbar that is available for Firefox, but not Safari.

Contribute CS3 brings some welcome refinements to the program's blog-editing features. It's now easier to select a previous post for editing and to delete posts. Blog editing is now WYSIWYG, and the program caches your blog's template so you can write entries when you're offline. And you can now assign multiple categories to a post.

Contribute CS3

PROS: Improved editing features; general speed improvements.

CONS: Some features still available only in PC version; unfairly expensive upgrade pricing from previous version.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: $149; upgrade from any previous version, $79

COMPANY: Adobe Systems, www.adobe.com

Macworld's Buying Advice

Contribute CS3 is an appealing upgrade to Contribute 3 and earlier versions, especially for people with Intel Macs. It's the upgrade that Contribute 4 should have been, and Adobe should have rewarded users who upgraded to Contribute 4 with a free upgrade.

Tom Negrino has written many books on Dreamweaver and Contribute, including *Dreamweaver CS3 for Windows and Macintosh: Visual QuickStart Guide* (Peachpit Press, 2007).

MacBooks Trade Up

Modest update comes with impressive speed gains

BY HENRY NORR

Since its debut in May 2006, the MacBook family has earned a place in the pantheon of Apple's all-time greatest hits. The sturdy, Intel-powered notebooks have been so popular with consumers, especially students, that they've helped the company nearly double its laptop sales over the last year and grab close to 10 percent of the U.S. retail market.

The latest enhancements to the line aren't spectacular, but they're sure to solidify the MacBook's status as a market leader. All three models—still weighing in at 5.1 pounds, and still priced at $1,099, $1,299, and $1,499—have slightly faster processors and higher-capacity hard drives.

These MacBooks come with the same rich set of standard features as before. As in the previous versions, the base model is outfitted with a Combo (CD-RW/DVD-ROM) optical drive, while the two higher-priced notebooks include an 8× SuperDrive with double-layer support.

All three models now come with full, out-of-the-box support for 802.11n, the latest flavor of Wi-Fi wireless networking, which offers twice the range and up to five times the throughput of the previous standard, 802.11g.

Top to Bottom

The $1,499 MacBook, with its handsome black enclosure, now includes a 2.16GHz version of Intel's Core 2 Duo processor, compared to the previous 2GHz Core 2 Duo, and it comes with a 160GB hard drive, up from 120GB.

As for the $1,299 white model, it now has a 2.16GHz Core 2 Duo chip, up from 2GHz, and its hard drive has grown from 80GB to 120GB. And the $1,099 white model, which previously came equipped with a 1.83GHz version of the Core 2 Duo and a 60GB hard drive, now sports a 2GHz processor and an 80GB drive.

The biggest winner in this refreshed lineup is probably the entry-level model. In its previous iteration, with only 2MB of L2 cache and 512MB of RAM in the standard configuration, it felt slightly sluggish, at least to me, compared to the other two models. That's no longer true. In Macworld Lab's Speedmark 4.5 benchmark tests, the new $1,099 model scored 192—a performance increase of 13.6 percent over the discontinued 1.83GHz model's score.

Macworld's Buying Advice

With more cache and system memory as well as a larger hard drive, the $1,099 MacBook is noticeably snappier than its predecessor, and not significantly slower than its higher-priced siblings. Still, if you can afford to pay an additional $200, my recommendation is to opt for the midrange model: its SuperDrive and roomier hard drive are sure to come in handy sooner or later—sooner if you're into digital music, photos, and video.

As for the $1,499 black model, it sure looks classy, but I've found that handprints can mar its elegance. You'll have to decide if the cachet of owning a black Mac laptop—and the larger hard drive—is worth the extra expense.

Henry Norr is a veteran Mac technology writer based in Berkeley, California.

Macworld **Lab Test**

Speedmark 4.5 Test Results

13-inch MacBook Core 2 Duo/2.16GHz (black)	202
13-inch MacBook Core 2 Duo/2.16GHz (white)	195
13-inch MacBook Core 2 Duo/2GHz	192
13-inch MacBook Core 2 Duo/1.83GHz (white, Nov. 2006)	169
15-inch MacBook Pro Core 2 Duo/2.33GHz	223

Longer is better. Reference systems are in italics. Speedmark 4.5 scores are relative to those of a 1.25GHz Mac mini, which is assigned a score of 100. All systems were running Mac OS X 10.4.9, with 1GB of RAM and with processor performance set to Highest in the Energy Saver preference pane when applicable.—MACWORLD LAB TESTING BY JAMES GALBRAITH AND BRIAN CHEN

For complete benchmark test results, please visit macworld.com/ **2859**

13-Inch MacBooks

4½

PROS: Slightly faster CPUs; larger hard drives; 802.11n wireless capabilities; sturdy but elegant designs; great glossy screens; built-in AirPort Extreme and Bluetooth; integrated iSight cameras; good battery life; 2.16GHz models offer 8× SuperDrives.

CONS: Mediocre graphics performance limits its appeal for gaming; no expansion-card slot; black MacBook enclosure easily marred by fingerprints; no SuperDrive in 2GHz model.

PRICE: 2GHz, $1,099; 2.16GHz, $1,299; 2.16GHz (black), $1,499

COMPANY: Apple, www.apple.com

MORE INFO: macworld.com/2859

PHOTOGRAPH BY PETER BELANGER

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macworld.com/reviews

What we're reviewing online this month

SOFTWARE

FotoMagico 2 Pro △

RATING: ●●●● **PRICE:** $129 **COMPANY:** Boinx Software **URL:** www.boinx.com

FotoMagico 2.0.1 Pro is a powerful slide-show–authoring tool. Its intuitive interface and high level of motion, text, and audio control let you quickly create a viewing experience complete with ambience and anticipation. It interfaces with iTunes, so you can easily add music to your slide show, and it supports a number of exporting formats. However, the trade-off for real-time rendering and high-quality images is a stiff hardware requirement—you'll want at least a G5 or an Intel Core Duo Mac. If you create a lot of slide shows and want the ability to add text and audio, you'll be hard-pressed to find a more elegant and intuitive slide-show package (macworld.com/2833).

Google Desktop

RATING: ●●●○ **PRICE:** free **COMPANY:** Google **URL:** www.google.com

Google has decided to bring its search expertise to the Mac, and the initial release of Google Desktop shows some promise. Like Apple's Spotlight, Google Desktop builds an index of your files. When you summon Google Desktop's floating window and enter a query, the search results are displayed in a drop-down list below the query field. The software is somewhat snappier at displaying results than Spotlight, but the top results seem less specific, and the program is a memory hog. If you're a power user who is dissatisfied with Spotlight's lack of speed and difficulty with complex, Boolean-style searches, Google Desktop may be an improvement. But don't expect the almost magical results we've come to know and love from Google's Web search utility (macworld.com/2748).

FIND IT ONLINE For expanded reviews, type the blue URL at the end of each summary into your browser's address window.

iSale 4.1 △

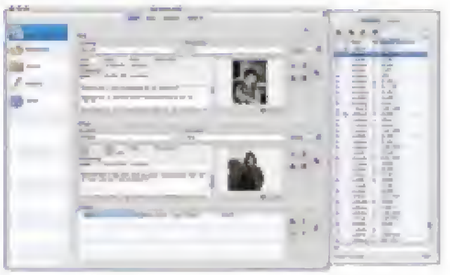
RATING: ●●●●○ **PRICE:** $40 **COMPANY:** Equinux **URL:** www.equinux.com

Equinux's iSale 4.1 distills the complexity of setting up an eBay auction into a familiar and intuitive interface. The program integrates with Apple's Spotlight, iCal, Dashboard, and iPhoto, as well as the iSight camera, and it's easy to learn. It helpfully keeps track of the different types of eBay fees that are associated with listing an auction, and it can provide you with a cost analysis before uploading your auction. iSale is good for beginning to intermediate eBay sellers, but high-volume sellers may find that its bulk-processing limitations slow down the listing process (macworld.com/2832).

MacFamilyTree 4.4

RATING: ●●●○ **PRICE:** $49 **COMPANY:** OnlyMac Software **URL:** www.onlymac.de

MacFamilyTree 4.4.6 is a genealogy program that takes full advantage of



your Mac—allowing you to use your iSight for capturing video clips and photos, as well as your built-in mike for capturing audio of your relatives. The program also makes it easy to use images you have stored in your iPhoto library. Once you create a new family member, you can add events—such as a marriage, a divorce, a birth, or an adoption—to your relative's data file. The program also has several unique reporting features, such as a way to visually pinpoint your family's country of origin. It's not as polished as other genealogy programs on the market, but it makes excellent use of your Mac's built-in tools (macworld.com/2835).

Mystery of Shark Island △

RATING: ●●●● **PRICE:** $20 **COMPANY:** PlayFirst **URL:** www.playfirst.com

In the game Mystery of Shark Island, you're an island castaway. You've awakened on a beach, next to a stone box engraved with a set of odd carvings. As the ocean waves lap at the beach, they bring all sorts of material—fragments of shells, stones, driftwood, seahorses, sea urchins, and more. With each wave, the box opens to reveal the items you need to find—before the timer counts down. It's a fun puzzle game, although the

variety of objects you have to locate is extensive at the beginning of the game and tapers off midway through. Still, it's an addictive game that will test your visual acuity and make you feel as though you've spent a day at the beach (macworld.com/2834).

HARDWARE

C6000dn

RATING: ▮▮▮▮ **PRICE:** $850 **COMPANY:** Oki Data **URL:** www.okidata.com

The more color laser printers come down in price, the more popular they get. Now even high-end features like built-in automatic duplex printing and 10/100BaseT Ethernet networking are becoming standard on some color lasers under $1,000, such as Oki Data's C6000dn. It offers crisp black text, quick print speeds, and a paper-saving double-sided printing feature, but the C6000dn's graphics printing capabilities could use a little work. If most of your print jobs are multiple-page, text-heavy documents, this Oki is definitely a worthy contender (macworld.com/2839).

CanoScan 8600F

RATING: ▮▮▮▮ **PRICE:** $180 **COMPANY:** Canon **URL:** www.canonusa.com

What used to be considered high-end

features, such as transparency scanning, 4,800-dpi optical resolution at 48 bits, a full complement of bundled software, advanced controls, and lightning-fast speeds, are standard in this very affordable scanner package. For people who have yet to bring their old photos into the digital realm, this high-quality desktop photo and film scanner is definitely worth a look. Although it was a little slow to warm up, and its photo scans were a touch dark, the CanoScan 8600F proved to be a very good all-around scanner (macworld.com/2836).

iDisguise

RATING: ▮▮▮▮ **PRICE:** $10 **COMPANY:** iDisguise **URL:** www.idisguise.com

Looking like a small tin of mints—complete with realistic nutritional information on the back—the iDisguise provides a snug, foam-lined compartment designed for a first- or second-generation iPod nano. Its goal is to keep your iPod safe by disguising it from thieves. The idea is clever, and it certainly beats leaving your iPod lying around in the open—unless, of course, you've got sugar-craving coworkers who are more likely to swipe your mints than your iPod. You could always make a similar container of your own, but $10 is hardly an outrageous price to pay to keep your nano safe (macworld.com/2841).

iYiYi △

RATING: ▮▮▮▮ **PRICE:** $300 **COMPANY:** Tivoli Audio **URL:** www.tivoliaudio.com

Desktop iPod speaker systems have come a long way since Bose's SoundDock was released in 2005. The iYiYi is one of the better systems out there, thanks to good sound quality, an extensive feature set, a stellar FM radio, an impressive wireless remote, and a sturdy design. If your budget can handle it, the iYiYi is worth considering, particularly if you also like to listen to the radio (macworld.com/2842).

MultiSync LCD2690WUXiSV

RATING: ▮▮▮▮ **PRICE:** $2,000 **COMPANY:** NEC **URL:** www.necdisplay.com

The NEC MultiSync LCD2690WUXiSV is a 26-inch wide-screen LCD monitor that includes a colorimeter, a programmable 12-bit color lookup table for smooth color transitions and gradients, the ability to display up to 94 percent of the Adobe RGB color space, and X-light Pro technology for keeping brightness and color consistent over the life of the display. It carries a high-end price tag, but this feature-packed monitor is a tool that every serious color geek should consider (macworld.com/2837).

Creative Writing Software

Journler 2.5

RATING: ▮▮▮▮½

PRICE: Free

COMPANY: Philip Dow

URL: www.journler.com

In many ways, Journler 2.5.2 is like an iLife program for your writing. It allows you to link the resources you need for writing and for inspiration—photos, Web links, e-mails, video, audio, and other documents—and lets you organize these files around written entries, which Journler then indexes for searching purposes. It's a great tool for connecting and organizing your thoughts and ideas. Whether you need it to keep a daily blog, record project notes, or write a novel, Journler is a meaty tool for Mac owners who love to write (macworld.com/2844).

Ulysses 1.5

RATING: ▮▮▮▮

PRICE: €80 (about $105)

COMPANY: The Blue Technologies Group

URL: www.blue-tec.com

Ulysses 1.5 combines the simplicity of a text editor with powerful project-management functions. It creates *projects*, which are bundles containing one or several documents. The program includes an optional full-screen mode, which can be extremely handy for avoiding distractions. Ulysses is aimed at creative writers and journalists who regularly work with text alone and don't necessarily need any formatting features. Although the software seems expensive when compared to similar titles, it's a fine and mature program (macworld.com/2843).

Top Products

Your guide to the best hardware we've tested. See more at macworld.com/reviews.

PRINTERS

LASER PRINTER

C6100dn

RATING: ●●●●½
PRICE: $1,102
COMPANY: Oki Data
URL: www.okidata.com

The C6100dn, from Oki Data, produces great-looking prints, and it includes built-in duplexing. It has easy network connectivity and quick printing speeds (macworld.com/1670).

INK-JET PHOTO PRINTER

Pixma iP6700D

RATING: ●●●●½
PRICE: $180
COMPANY: Canon
URL: www.canon.com

The Canon Pixma iP6700D prints excellent-quality photos comparable to those developed in a lab. Its ease of use ensures that veteran photographers won't miss the long days they spent in a darkroom (macworld.com/2700).

COMPACT PHOTO PRINTER

PictureMate Flash PM 280

RATING: ●●●● **PRICE:** $300
COMPANY: Epson
URL: www.epson.com

The PictureMate Flash PM 280 offers the best-looking 4-by-6-inch borderless photos of all the portable photo printers we've tested, and it prints them fast (macworld.com/2396).

MULTIFUNCTION INK-JET

Photosmart C7180

RATING: ●●●●
PRICE: $400
COMPANY: Hewlett-Packard
URL: www.hp.com

The HP Photosmart C7180's features, connection options, and solid print and scan quality make it an excellent ink-jet MFP (macworld.com/2475).

MULTIFUNCTION LASER

AcuLaser CX11NF

RATING: ●●●● **PRICE:** $800
COMPANY: Epson
URL: www.epson.com

This device has it all: it's a color laser printer, a sheet-fed scanner, a copier with networking capabilities, and a fax machine (macworld.com/1669).

MACS

PRODUCT	PROCESSOR	RATING	BEST PRICE[a]	DISPLAY	SPEEDMARK 4.5 SCORE[b]	FIND CODE[c]
DESKTOP						
iMac	Intel Core 2 Duo/1.83GHz	●●●●	$989	17 inches	202	1727
	Intel Core 2 Duo/2GHz	●●●●½	$1,149	17 inches	232	1728
	Intel Core 2 Duo/2.16GHz	●●●●½	$1,489	20 inches	245	1729
	Intel Core 2 Duo/2.16GHz	●●●●½	$1,879	24 inches	245	1730
Mac mini	Intel Core Duo/1.66GHz	●●●●	$556	not included	152	1731
	Intel Core Duo/1.83GHz	●●●●	$755	not included	165	1732
Mac Pro	Intel Xeon/ two dual-core 2.66GHz	●●●●	$2,253	not included	299	2489
PORTABLE						
MacBook	Intel Core 2 Duo/2GHz	●●●●½	$1,075	13 inches	192	2863
	Intel Core 2 Duo/2.16GHz	●●●●½	$1,275	13 inches	195	2864
	Intel Core 2 Duo/ 2.16GHz (black)	●●●●½	$1,449	13 inches	202	2865
MacBook Pro	Intel Core 2 Duo/2.16GHz	●●●●½	$1,869	15 inches	209	2340
	Intel Core 2 Duo/2.33GHz	●●●●½	$2,299	15 inches	226	2341
	Intel Core 2 Duo/2.33GHz	●●●●	$2,536	17 inches	211	2342

[a] From a PriceGrabber survey of resellers as of June 5, 2007. [b] Speedmark 4.5 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.4 (Tiger). For information on Speedmark testing, go to www.macworld.com/speedmark. [c] Typing in find codes after macworld.com/directs you to a product's review or overview. For example, macworld.com/2489 contains an overview for the 2.66GHz Mac Pro.

FLATBED SCANNER

Perfection V700 Photo

RATING: ●●●●
PRICE: $550
COMPANY: Epson
URL: www.epson.com

The Epson Perfection V700 Photo is an excellent midrange scanner for people who need to scan both reflective

Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we'll update the list. For longer reviews of these products and for other product recommendations, go to macworld.com/reviews. All prices are as rated. For the best current prices, go to macworld.pricegrabber.com. All products were available as of May 18, 2007.

media and transparencies (macworld.com/1519).

DIGITAL CAMERAS

DIGITAL SLR

Digital Rebel XT

RATING: ★★★★½
PRICE: $899; with lens, $999 **COMPANY:** Canon
URL: www.canon.com

The Digital Rebel XT's feature set, image quality, and price, combined with the vast assortment of available Canon mount lenses, make it the best choice in the sub-$1,000 digital SLR market (macworld.com/0535).

COMPACT DIGITAL CAMERA

Coolpix S7c

RATING: ★★★★
PRICE: $350
COMPANY: Nikon
URL: www.nikon.com

If you're looking for a full-featured point-and-shoot camera that delivers excellent image quality, the 7-megapixel Nikon Coolpix S7c is a great choice. Its ease of use and convenient Wi-Fi features add great value to a fine camera (macworld.com/2386).

MINIDV CAMCORDER

PV-GS320

RATING: ★★★★
PRICE: $500
COMPANY: Panasonic **URL:** www.panasonic.com

Compared with other 3-CCD MiniDV camcorders, the Panasonic PV-GS320 is a bargain. And it's a good choice for people who want a camcorder that shoots high-quality video and still images for half the cost of a high definition device (macworld.com/2701).

LCD MONITORS

LARGE DISPLAY

LP2465

RATING: ★★★★
PRICE: $799
COMPANY: Hewlett-Packard
URL: www.hp.com

The LP2465 is an affordable and flexible 24-inch desktop LCD with a 16:10 wide-screen aspect ratio that immediately makes one think of the cinema (macworld.com/2508).

MEDIUM DISPLAY

MultiSync 2190UXi

RATING: ★★★★½
PRICE: $1,500
COMPANY: NEC
URL: www.necdisplay.com

The 21-inch NEC MultiSync 2190UXi doesn't come cheap, but graphics pros will love its vivid and accurate colors and wide viewing angle (macworld.com/1445).

DUAL-LAYER DVD BURNER

DRX-830UL-T

RATING: ★★★★½
PRICE: $130
COMPANY: Sony
URL: www.sony.com

The Sony DRX-830UL-T is an external rewritable drive that's capable of burning multiple formats at very fast speeds. You can't ask for much more from a CD and DVD burner (macworld.com/2510).

FIREWIRE HARD DRIVES

DESKTOP DRIVE

G-Drive Q 500GB

RATING: ★★★★★
PRICE: $559
COMPANY: G-Technology
URL: www.g-technology.com

The G-Drive Q SATA hard drive has nearly every type of connection you could want, and it operates without a fan, so it's very quiet (macworld.com/1622).

PORTABLE DRIVE

Rocbit 2B

RATING: ★★★★★
PRICE: $230
COMPANY: Rocsecure **URL:** www.rocsecure.com

The Rocbit 2B is a fast and pleasantly quiet portable hard drive featuring real-time encryption. It's well worth its cost if security is a concern (macworld.com/1443).

iPODS

PRODUCT	CAPACITY	RATING	BEST PRICE*	DISPLAY	BATTERY LIFE	MEDIA SUPPORTED	FIND CODE†
iPod	30GB	★★★★½	$180	2.5-inch color	14 hours of music playback; 4 hours of slide shows with music; 3.5 hours of video playback	Music, photos, album art, video, games	2233
iPod	80GB	★★★★½	$279	2.5-inch color	20 hours of music playback; 6 hours of slide shows with music; 6.5 hours of video playback	Music, photos, album art, video, games	2234
iPod nano	2GB	★★★★½	$100	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	2235
iPod nano	4GB	★★★★½	$145	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	2236
iPod nano	8GB	★★★★½	$184	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	2237
iPod shuffle	1GB	★★★★	$48	N/A	12 hours of music playback	Music	2238

*From a PriceGrabber survey of retailers as of June 5, 2007. †Typing in find codes after macworld.com/ directs you to a product's review or overview. For example: macworld.com/2233 contains an overview for the 30GB video iPod.

Software Treats

63 Great Mac Programs That Won't Cost You a Bundle

There's a lot of free and low-cost software available to Mac users these days. The challenge is sifting through that vast selection to find the prized few worthy of a permanent place on your hard drive. So to help you out, we've scoured the Web and come up with 42 great Mac programs that don't cost a pretty penny—in fact, many of them are free. We also asked some of our favorite writers and Mac luminaries to choose 21 past software gems that they still can't live without. Come see all the goodies we've found.

Don't forget to take a look at *Macworld's* monthly *Mac Gems* column and visit our Mac Gems Weblog (macworld.com/macgems) for a ton of other software bargains you won't want to miss.

ILLUSTRATIONS BY JOHN UELAND

MAC GEMS!
IM
5¢

Take Control of Your System

UTILITY

Caffeine 1.1 △

If you need your Mac to always be awake—because you're serving up your Web site from it, perhaps—you can use the Energy Saver pane in System Preferences to turn off all sleep options. But if you need your Mac to be sleepless only occasionally, Caffeine 1.1 (●●●½) is the stimulant for you. Set your Mac up with normal energy-conserving settings; when you need it to be sleepless, simply click on the Caffeine icon in the menu bar. While thus "Caffeinated," your Mac won't go to sleep, dim its screen, or activate a screen saver. When you no longer need Caffeine's help, you can revert to your standard settings by clicking on the icon again (free; Lighthead Software, www.lightheadsw.com).—DAN FRAKES

UTILITY

DasBoot 1.0.2

Even in OS X, things can go wrong, so having diagnostic and repair tools on hand is important. DasBoot 1.0.2 (●●●●½) takes an interesting approach to the problem: it lets you install the software from bootable repair CDs and DVDs, such as Alsoft's DiskWarrior or Micromat's TechTool Pro, onto an iPod (or a portable hard drive or flash drive, for that matter) with enough free space. You then have a portable repair system you can use to boot and fix your Mac much more quickly than you can with a CD or DVD (just remember that not all iPod models or cables will work with all Macs for booting purposes). DasBoot can also install other OS X programs, such as Console, Disk Utility, System Profiler, and Terminal, for use when diagnosing problems. Installing and running DiskWarrior from a fourth-generation iPod, for example, worked flawlessly for fixing problems on my Mac Pro. Best of all, your iPod remains an iPod—you can still use it to listen to music, view photos, and watch movies (free; SubRosaSoft.com, www.subrosasoft.com).—JONATHAN L. SEFF

PRODUCTIVITY

inkBook 1.3.2

Apple's handwriting recognition technology, Ink, is OS X's forgotten feature; inkBook 1.3.2 (●●●½) gives it new life. If you have a compatible tablet, such as a Wacom model or OWC's ModBook, inkBook provides a virtual pad on which you can write notes by hand; behind the scenes, Ink recognizes each word and converts it into standard text. You can search your handwritten notes for particular words, copy your handwriting and paste the text into another document, or export your notes directly to a text file. You can even drop an image or a PDF file into inkBook to make it a new page in a document; you can then write on the image or PDF. You can also use calligraphy and paintbrush modes to sketch complex creations right next to your text ($20; Mage Software, www.magesw.com).—DF

BACKUP

NTI Shadow for Mac 3.1.07

While you should regularly back up your entire hard drive, making frequent backups of just the files you modify often can be even more critical. Preserving these files is the idea behind NTI Shadow for Mac 3.1.07 (●●●½). It doesn't have all the bells and whistles of a full-featured backup utility, but it is quicker and easier to use than most. Just select one or more files or folders, and then set a backup schedule—and you're done. Choose a brief interval—30 minutes, say—and you'll never again risk losing recent versions of files. You can also choose to save, rather than delete, older versions of backed-up files. The program has some rough edges—it occasionally disregarded the schedule I selected, backing up less often than it should have, for example—but it's still a worthwhile addition to your Mac ($30; NewTech Infosystems, www.ntius.com).—TED LANDAU

UTILITY

PlistEdit Pro 1.3

There are several choices out there when it comes to utilities for editing property list (.plist) files, including Apple's own Property List Editor (one of the Xcode developer applications). If you want the best choice, however, shell out a few bucks and get PlistEdit Pro 1.3 (●●●½). PlistEdit Pro's extensive feature list includes the ability to cut or copy any .plist file property and paste it into another file (something Property List Editor can't do). Finding and editing the file or

property you want is a snap—a Find dialog box offers numerous options for locating and replacing any property within an open file. And a convenient Preference File Browser lists all the .plist files in your Preferences folders and lets you search for a file by name or by content ($25; Fat Cat Software, www.fatcatsoftware.com).—TL

PRODUCTIVITY

PTHPasteboard Pro 4.2 △

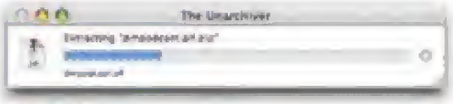
Every time you cut, copy, or paste, you use your Mac's Clipboard. But the Clipboard holds just one item at a time—you overwrite that item when you copy something else, and the Clipboard contents are erased when you shut down your computer. Enter PTHPasteboard Pro 4.2 (★★★★½), which lets you store as many copied or cut items as you need and selectively paste any one of them with a few clicks or keystrokes. Copied items will still be there even after you restart. Plus, you can define custom pasteboards to store frequently used items such as boilerplate text. Unlike the free PTHPasteboard, the Pro version offers filters that can manipulate your text while pasting it (changing the case, performing find-and-replace actions, or removing formatting, for example), and it lets you sync pasteboards between Macs ($20; PTH Consulting, pth.com).—JOE KISSEL

UTILITY

Sounds4Fun 1.0.1

If you remember the classic Mac OS sound utilities SoundMaster, iBeep2, SndControl, and FunSounds, you'll probably enjoy their

OS X equivalent, Sounds4Fun 1.0.1 (★★★½). This amusing utility plays sounds whenever you perform events such as accessing a menu, moving a file, opening a document, pressing the caps lock key, and closing a window—there are nearly 70 events in all. Although Sounds4Fun provides sample sounds, the real fun begins when you supply your own (in AIFF, MP3, M4A, .mov, SFIL, or WAV format). You can configure and switch between sound sets, and you can assign a hot key to turn Sounds4Fun on and off. In addition to being just plain fun, the custom alerts Sounds4Fun creates may appeal to your practical side as well—for example, an alert can let you know that your MacBook or MacBook Pro's MagSafe power connector has come loose ($14; Ettore Software, ettoresoftware.com).—DF



UTILITY

The Unarchiver 1.6 △

The vastness of the Internet often throws you into close quarters with myriad arcane and cryptic compression formats. While OS X's built-in decompression feature can handle most ZIP files, what do you do when you encounter the odd RAR or ACE file? The Unarchiver 1.6 (★★★★½) deals with these files and more with aplomb. The Unarchiver's preferences let you choose which formats the program will handle. Although it does work with StuffIt's SIT format, it isn't compatible with the newer SITX format, so you'll probably still need to keep a copy of StuffIt Expander handy. And as its name suggests, it handles only *unarchiving* tasks; for your compression needs, you'll have to look elsewhere (payment requested; Dag Ågren, wakaba.c3.cx).—DAN MOREN

GEMS FAVORITES

Adam C. Engst

Macworld senior contributor and publisher of the TidBits newsletter:

Backdrop ★★★★; macworld.com/2604
For those of us who need to take screenshots of OS X's frequently translucent interface elements, Backdrop's disarmingly simple function—putting a white background above all the usual window clutter—is tremendously useful.

EasyFind ★★★★½; macworld.com/1209
Spotlight simply doesn't work well for me, since I often want to limit my search to just file names—a task that EasyFind performs with less fuss.

GrandPerspective ★★★★; macworld.com/2433 and **WhatSize** ★★★★; macworld.com/2433
When I'm running out of space on one of my Macs, I take a two-pronged approach to identifying the culprits. First I run GrandPerspective to get a graphical overview of which folders and files are the largest. Then I use WhatSize to drill down and determine more specifically what I want to delete.

SubEthaEdit ★★★★★; macworld.com/1672
For quick writing with a small group, such as the writing we need to do when covering an Apple keynote for TidBits, I have come to depend on SubEthaEdit's real-time collaborative writing capabilities.

UTILITY

USB Overdrive 10.4.5

Have a USB input device—old or new—that doesn't have OS X drivers (or has drivers that are, well, lacking)? USB Overdrive 10.4.5 (★★★½) may be the solution to your problems. This Universal USB driver works with most third-party USB devices—including mice, trackballs, joysticks, and game pads—and lets you con-

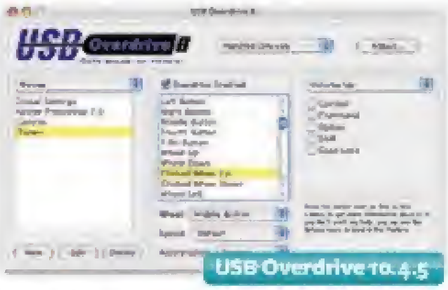
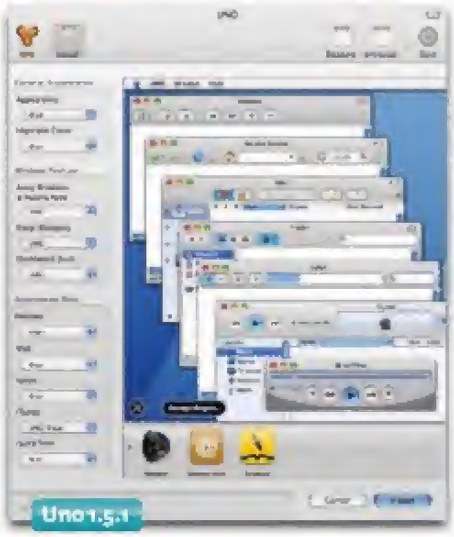


figure the systemwide or application-specific behavior of each button or switch. Possible actions include a variety of clicks; keystrokes; system, editing, and browser commands; and cursor controls. You can also configure buttons on your input devices to launch programs, open documents, and go to URLs. Note that USB Overdrive doesn't work with all devices (for instance, it doesn't work with Bluetooth ones), so be sure to try out the free demo before buying ($20; Alessandro Levi Montalcini, www.usboverdrive.com).—DF

UTILITY

Uno 1.5.1

Ever wish you could override the design team at Apple and apply Tiger's slick unified-toolbar interface to all of your programs? With Uno 1.5.1 (★★★★), that's finally possible. The program lets you assign one of several variations on the unified-toolbar's appearance to your software, including the Finder, Safari, Mail, iTunes, QuickTime, and Preview (as well as dialog boxes and other system windows). Since Uno swaps out system files, it doesn't necessarily play nice with all your other programs: some third-party software may look a little odd. Luckily, Uno gives you a preview of what programs will look like before you apply the change (but you'll need to restart to see the effects in action). And if you decide that Apple had the right idea after all, you can always restore your system to the way it was (payment requested; Pedro Grilo, gui.interacto.net).—DM



GRAPHICS

VueScan 8.4.22

If you've got an older scanner that's not supported in the current version of OS X—or a supported scanner that's sorely lacking software features—check out VueScan 8.4.22 (★★★★). This scanner software package works with nearly any scanner that you can physically connect to your Mac (more than 700) and provides both basic and advanced scanning features. VueScan gives you extensive control over your scans, including color-balance adjustments—you can choose from presets for common photo-taking conditions, such as fluorescent or incandescent lighting, and for particular media, such as slides and film negatives. You can also save setting combinations without altering the original scan. VueScan even provides simple optical character recognition features and performs batch scanning. Note that some scanners still require drivers from the manufacturer; for these scanners, VueScan acts only as your scanning software (Standard Edition, $40; Professional Edition [with lifetime updates and additional features], $80; Hamrick Software, www.hamrick.com).—DF

UTILITY

Visor 1.2.1 △

As a concept, Visor 1.2.1 (★★★½) will be familiar to people who've played games such as Quake 3. When you install this handy add-on (a SIMBL plug-in, actually), you'll be able to press a hot key of your choice and have a Terminal window slide down from the top of your screen—command-line jockeys will wonder how they ever got by without it. The Tiger-only program even lets you specify a Quartz animation—one of Tiger's screen savers, for example—as a background, though doing so will slow it down a bit. While the program has a few quirks (Terminal needs to be running, though some enterprising users have come up with hacks that hide it), people who live on the command line will quickly find that Visor has become part of their muscle memory (free; Blacktree, macworld.com/2603).—DM

PHOTOGRAPH BY PETER BELANGER

GEMS FAVORITES

Rick LePage

Macworld's editor at large:

ImageWell ★★★★; macworld.com/2781
Resizing images or converting them to PNG or JPG is painless with ImageWell, which is also a great tool for quick edits or for watermarking images without having to go into Photoshop.

LaunchBar ★★★★★; macworld.com/1010
For me, there's no more useful program than this all-purpose file launcher and search utility. It adapts to my work brilliantly, and the developer continues to add the right features while keeping it bloat-free.

Menu Master ★★★★; macworld.com/1207
I use quite a few of Unsanity's *haxies*, and Menu Master—which lets me customize my menus to suit the way I want to work—is the one I absolutely can't live without. It's simple and elegant, and it's the first thing I install on any new Mac.

Snapz Pro X ★★★★★; macworld.com/1473
Snapz Pro is obviously the best utility for making screen grabs for reviews and blog entries, but it's so good that I keep finding new uses for it. The movie-capture feature, for example, lets me show my folks how to do something in iPhoto.

Connect with the World

CHAT

Adium 1.0.3

While iChat is fine for people just starting out in the world of instant messaging, seasoned IM users might yearn for a little more variety. The open-source Adium 1.0.3 (♦♦♦♦) gives you choices in spades. It easily supports accounts on all major chat networks, from AIM to Yahoo, and even lets you log in to multiple accounts at the same time, consolidating all of your contacts into one master buddy list. Its user-interface customization capabilities put iChat to shame, and its built-in log viewer will be a huge help when you need to find that link your friend sent you the other day. Like iChat, Adium plays nicely with OS X's Address Book and supports encrypted chat. On the downside, it lacks iChat's audio and video chatting, and file transfers can be wonky at times (payment requested; Adium, adiumx.com).—DM

AUDIO-VIDEO

Call Recorder 2.0

Interviews are a great way to spice up podcasts. Skype has made long-distance calling via your computer easy and inexpensive, and Call Recorder 2.0 (♦♦♦♦½) makes it a cinch to record a Skype chat for inserting into your next podcast: it's literally as simple as clicking on a button. Call Recorder lets you choose the compression method and the recording quality, and it's smart enough to record you and your chat partner on separate tracks—perfect for editing later. It also lets you record one or both

sides of a video chat in versions of Skype that support it ($15; Ecamm Network, www.ecamm.com).—DM

INTERNET
Cyberduck 2.7.3
Competition among file-transfer clients on OS X can get heated at times—heavyweights include Transmit and the venerable Interarchy. Cyberduck 2.7.3 (♦♦♦♦) has one big advantage over both of these worthy competitors: it's free (donations are requested). This open-source program's features include must-haves like SFTP support, integration with OS X's Keychain, and drag-and-drop file transfers. It also supports external editing with most common text editors. The intuitive interface will be familiar to any Mac user; it mimics the Finder's list view. To me, Cyberduck's top feature is its ability to resume stopped downloads, even after you've quit and reopened the program (payment requested; David V. Kocher, cyberduck.ch).—DM

GEMS FAVORITES

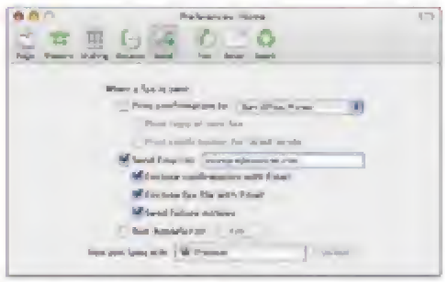
Merlin Mann
Editor of and primary contributor to 43 Folders (43folders.com):

Default Folder X ♦♦♦♦½; macworld.com/1678
You can tell Default Folder X is a classic because you start missing it the second you sit down at a Mac that doesn't have it installed. It reduces the tedium of a handful of annoying dialog-box tasks, and it's worth its price solely for the ability to set a per-program default location.

MailTags ♦♦♦♦; macworld.com/2457
This Apple Mail add-on will make you scratch your head and ask why its features aren't already available in OS X's e-mail program. MailTags makes it a breeze to apply ad hoc tags, as well as—my favorite—generate iCal tasks and appointments that stay associated with the originating e-mail message.

SuperDuper ♦♦♦♦♦; macworld.com/2325
This is the most brain-dead-easy way I know of to make a bit-for-bit bootable image of a Mac's drive—a true life-saver in waiting.

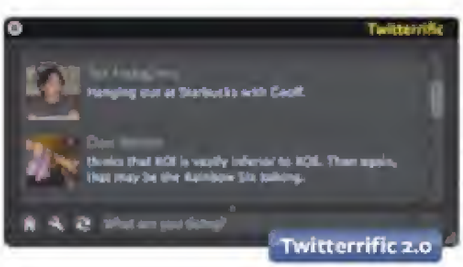
TextExpander ♦♦♦♦½; macworld.com/1672
This huge time-saver creates tiny text shortcuts for big blocks of text. It's great for boilerplate responses, and it can also correct your most-common typos. It saves me a few thousand keystrokes a week.



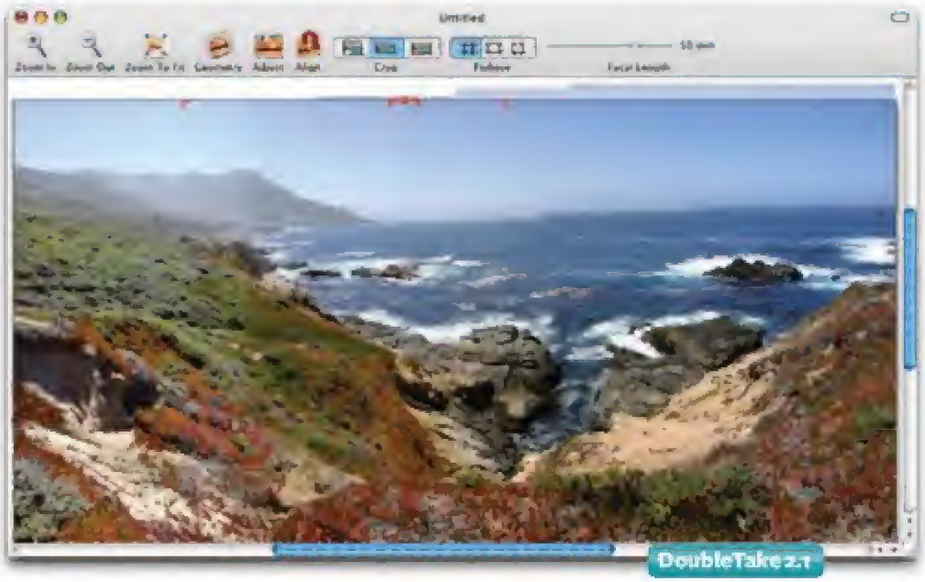
BUSINESS PRODUCTIVITY
PageSender 4.0.1 △
PageSender 4.0.1 (♦♦♦♦½) is a must for anyone who handles more than the occasional fax. Like OS X's built-in feature, PageSender lets you send faxes via OS X's Print dialog box and receive incoming faxes automatically. But PageSender provides postreception features that actually work, integration with most popular contact-management and e-mail–client address books, the ability to attach PDF documents and custom cover pages to faxes, and even spam filtering on incoming faxes. It also works with fax services such as eFax, jConnect, EasyLink, and MaxEmail ($40; SmileOnMyMac, www.smileonmymac.com).—DF

INTERNET
Transmission 0.72
As someone who loves downloading (legal) recordings of live music, I've tried most of the BitTorrent clients out there—software that lets you connect to other users for distributed file downloads (particularly useful for large file sets). For me, none is as fast or as easy to use as Transmission 0.72 (♦♦♦♦), and none can match its uncluttered interface. With it, you can handle multiple torrent files at once, limiting upload and download bandwidth for each (although that takes a few extra steps). It lets you filter your view to see only active downloads, files you've completed and are continuing to share with others, or files you've paused and aren't actively downloading. And it offers any information you could want about torrents. All it's missing is the ability to download individual files from larger sets—one reason I keep Azureus installed on my Macs, too (free; Transmission Project, transmission.m0k.org).—JLS

INTERNET
Twitterrific 2.0
Say what you will about Twitter, the new social-networking phenomenon—but if you're using it without Twitterrific 2.0 (♦♦♦♦♦), you're getting only half the experience. This slick little program lets you forgo Twitter's Web-based interface, checking for tweets at regular intervals and enabling you to post your own. Keyboard shortcuts let you summon or hide Twitterrific's window, easily reply to tweets, and even send private messages. The latest version adds integration with IM clients, so you can opt to set your latest tweet as your status message. So what doesn't Twitterrific come with? A much-needed warning about just how addictive Twitter can be (free; The Iconfactory, iconfactory.com).—DM



Get Creative



PHOTOGRAPHY

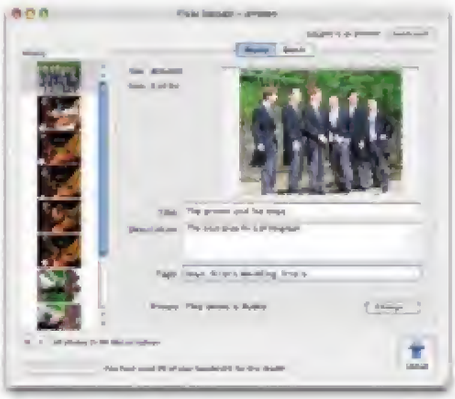
DoubleTake 2.1

Many digital cameras come with a photo-stitching program that lets you combine several photos in a panorama. But I haven't seen one that works as well as DoubleTake 2.1 (★★★★½). Drag a group of photos into DoubleTake, and it automatically arranges and combines them—even if they were out of order when you dragged them in. If the arrangement isn't right, you can drag images to the correct placement. To perfect the arrangement, you can rotate, tilt, and scale each image, as well as adjust its exposure, gamma, brightness, contrast, and saturation. You can even correct fish-eye distortion via a focal-length control. And if you can't quite get the colors of two adjoining images to match, you can move the seam between them to a different location or widen the seam for a more gradual transition. DoubleTake lets you save both the resulting image and the arrangement—so you can go back and make changes later—and includes options for creating a QuickTime VR movie and for printing poster-size images on a standard printer ($22; Echo One, echoone.com).—DF

PHOTOGRAPHY

FlickrBooth 1.1

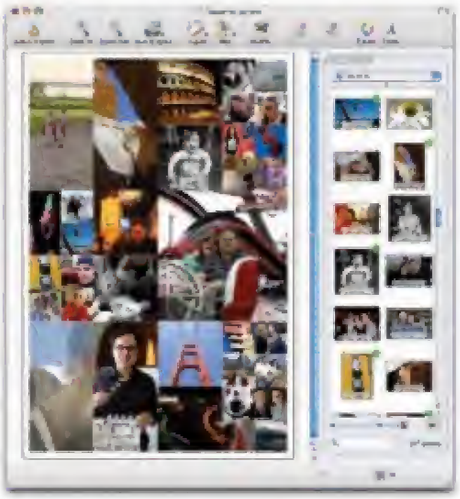
Though Photo Booth, which Apple includes on all Macs with built-in iSight cameras, may not boost your productivity, it sure is fun. But once you've taken shots of yourself with all sorts of crazy effects, how do you share them with your friends? With the FlickrBooth 1.1 plug-in (★★★★½), naturally. It gives you the option of uploading your snapshots to the photo-sharing site Flickr, either automatically or on a per-picture basis. FlickrBooth lets you title, describe, and tag the pics, and it even offers an option for tagging them with the effect used (Sepia or Pop Art, for example). And since it also tags them with the word *flickrbooth* by default, it's easy to browse Flickr for other people's Photo Booth shots (payment requested; Tristan O'Tierney, www.otierney.net).—DM



PHOTOGRAPHY

Flickr Uploadr 2.3 △

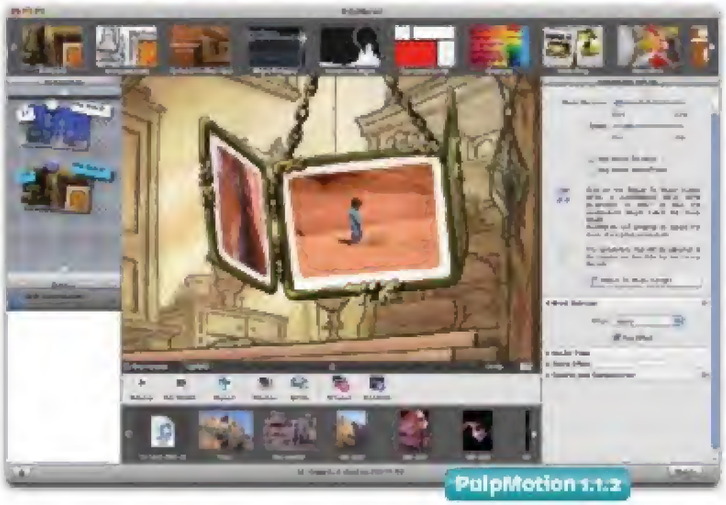
People who love to share their digital photos know that Flickr is the place to go on the Web. But while Flickr's Web-based uploading is fine for one or two snaps, uploading a memory card full of shots from your vacation is a pain. Fortunately, Flickr also provides the free Flickr Uploadr 2.3 (★★★★), stand-alone software that lets you easily upload a batch of photos (you can even drag and drop pictures from iPhoto). Flickr Uploadr can scale pictures to a preferred size (great for people with free Flickr accounts, which limit monthly bandwidth). You can also tag your photos, individually or as a batch; create new photo sets; and choose who's allowed to view your shots. And the latest version is Universal (free; Flickr, www.flickr.com/tools).—DM



PHOTOGRAPHY

Posterino 1.1 △

If you want to create a collage of your favorite photos and put it on a poster, Posterino 1.1 (★★★½) is the slickest and easiest way to get the job done. The program offers a variety of templates, with grids of identically sized frames or with mixtures of shapes and sizes. Adding photos from iPhoto or elsewhere is a cinch. You can have Posterino fill the frames for you, or you can drag and drop images manually for more control. You can also change the size and shape of individual frames, and adjust the placement of each image within its frame. Export options let you send your finished poster to iPhoto or Flickr, hand it off to your e-mail program, or save it elsewhere on your hard drive. The program also lets you create postcards, but they'll cost you about $4 to mail, since they're


PulpMotion 1.1.2

mailed through the Swiss Post ($25; Zykloid Software, zykloid.com).—KELLY TURNER

DESIGN

PulpMotion 1.1.2

The Mac encourages creativity, and this has inspired Aquafadas to provide a more entertaining approach to making photo slide shows. PulpMotion 1.1.2 (★★★½) lets you put your photos (as well as videos and live captures from an iSight or a camcorder) into animated themes. And like the themes found in Apple's Keynote or iDVD, PulpMotion's environments range from whimsical to boardroom professional. You can crop and rotate images within the program, as well as apply a dizzying array of settings to a slide show—such as customizable backgrounds and timing adjustments, all powered on-the-fly by OS X's Quartz technology. You can then export the result as a movie in several formats, including iPod- and Apple TV–compatible ones; pass it along to iWeb, iDVD, GarageBand, or Mail; or even save it as an OS X screen saver. PulpMotion does have some rough edges, such as the inability to use photos from Aperture. But it's a fun way to express yourself by using more than just your photos' contents ($30; Aquafadas Software, www.aquafadas.com).—JEFF CARLSON

EDUCATION

Quiz Press 1.7.6

Quizzes are popular ways to test students' (or employees') knowledge; Quiz Press 1.7.6 (★★★½) lets you put your quizzes on the Web. The program's easy-to-use interface lets you create multiple-choice, fill-in-the-blank, short-answer, true-or-false, and cloze questions; you can even include audio and video (in Flash format). After creating your quiz, you just copy the resulting folder of HTML and Flash files to your Web server or .Mac Sites folder (or use Web Sharing on a local Mac). Quiz-takers can use any browser to take the test. At the end, the online quiz tells the taker how well he or she did, and which questions were missed; a click of a button sends you, the quiz-giver, the results in an encrypted format. Quiz Press doesn't manage the results, but it's a great way to create electronic tests ($50; Sol Robots, www.solrobots.com).—DF

MacMania 7
November 3rd –13th, 2007 • Panama Canal
www.GeekCruises.com/Mac-7

Speakers
Janet Hill • David Pogue
Randal Schwartz • Jason Snell
Derrick Story • Robin Williams
Steve Wozniak

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Macworld

Look, Listen, and Learn

AUDIO

ClickRepair 2.1

Converting LP tracks into digital music files is a snap—plenty of programs handle that task with ease. The more difficult part of the process is ridding the files of audible flaws—clicks, pops, crackles, and thumps caused by scratches, dust, and other damage. ClickRepair 2.1 (★★★★) has become almost legendary for its effectiveness in performing this task without significantly affecting audio quality. You can customize ClickRepair to be more or less aggressive in its efforts; you can save settings that you've found to be effective with particular types of music; and you can manually remove sonic blemishes. Useful monitoring modes let you hear the original or soon-to-be-repaired audio (or just the noise being removed) in real time. Finally, the ClickRepair manual and Web site provide extensive documentation and tutorials on the process of converting vinyl to digital ($45; Brian Davies, macworld.com/2602).—DF

AUDIO

EasyWMA 2.7.3 △

If you've got WMA, WMV Audio, ASF, or Ogg Vorbis audio files that you'd like to be able to play in iTunes or on your iPod, EasyWMA 2.7.3 (★★★½) is worth a look. Just choose your output format (AIFF, MP3, M4A/AAC, or WAV) and bit rate, and then drag the audio files—as many as you want—into the EasyWMA window; the program will quickly convert and save them in a location of your choosing. (Unfortunately, EasyWMA doesn't support DRM-enabled Windows Media files or the WMA Lossless and WMA Voice codecs.) The software preserves existing ID3 tags and can even import the resulting tracks into iTunes ($10; Patrice Bensoussan, www.easywma.com).—DF

WEB

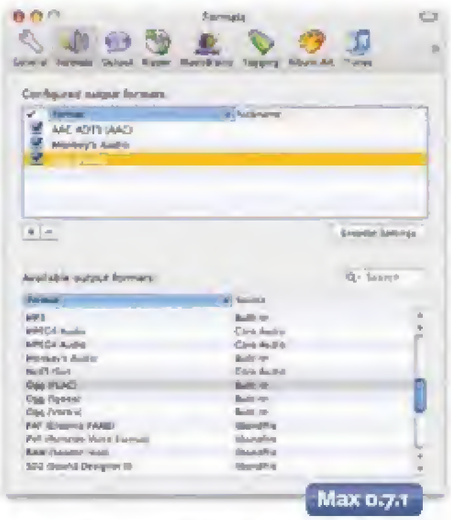
FLVR 1.0

How many times have you found a great video on a Web site and tried to save it to your hard drive, only to discover that the clip is in Flash format? Thanks to the FLVR 1.0 plug-in for Safari (★★★★½), *Flash* no longer means "can't download." FLVR places a new button in Safari's toolbar and lets you download any Flash media from a Web page, with just a few clicks. Even better, FLVR can automatically convert Flash video to AVI, MP4, or QuickTime files (using the MPEG-4 or H.264 codec) and can save Flash audio as AAC or MP3 files, so you can take the files with you on an iPod ($15; Tasty Apps, www.tastyapps.com).—DF

AUDIO

Max 0.7.1

If you're an audio geek, you may feel limited by iTunes when it comes to features for converting your CDs to digital music files. If so, you'll want to check out Max 0.7.1 (★★★★½), which lets you rip CDs to more than 20 audio formats, including all of iTunes' choices (AAC, AIFF, Apple Lossless, MP3, and WAV), as well as such popular alternatives as FLAC, Monkey's Audio, and Ogg Vorbis. Max also offers advanced options for ripping damaged discs and tag-



GEMS FAVORITES

Rob Griffiths

Macworld senior editor and creator of MacOSXHints.com:

Butler ★★★★½; macworld.com/1246
This powerful tool does everything for me—launches programs, controls iTunes, creates navigable pop-up folders, runs AppleScripts, and even handles basic macros. It's my one can't-work-without-it utility.

Chax ★★★½; macworld.com/2605
I have dozens of open chat windows most of the time, so Chax brings me order by adding a tabbed window to iChat. This essential iChat add-on also has built-in log and activity viewers.

Google Earth ★★★★; macworld.com/2379
I used to take out my bike or car to measure routes that I like to run. Now I just use Google Earth's path tool to get an accurate measurement without leaving the house. When I'm done, I can copy and paste the map of the route, and keep it for future use. (Oh, yeah—it's also a great way to explore the planet.)

Keyword Assistant ★★★★; macworld.com/2782
If you use keywords in iPhoto (and you should), Keyword Assistant makes it much easier to add, delete, and work with your keywords. It's an essential add-on for high-volume users of keywords in iPhoto.

PHOTOGRAPH BY PETER BE LANGER

ging tracks; lets you customize the format for file names; and can even automatically rip multiple versions of each track—for example, uncompressed for playing in your home audio system and compressed for use on an iPod (payment requested; Stephen F. Booth, sbooth.org).—DF

VIDEO

NicePlayer 0.95

Many QuickTime Player users find themselves frustrated when they try to play video in full-screen modes (that's possible only if you pony up $30 for QuickTime Pro).

The open-source NicePlayer 0.95 (♦♦♦♦) lets you do that and more. It'll play DVDs, and even let you use the Apple Remote to control playback from the comfort of your couch. One unique feature of NicePlayer is the ability to resize the video using your mouse's scroll wheel—this allows you to eliminate letterbox effects in some DVD videos. With the addition of codec plug-ins, NicePlayer can handle pretty much any format you throw at it. And unlike QuickTime Player, it supports playlists (payment requested; Robert Chin and Jay Tuley, niceplayer.sourceforge.net).—DM

EDUCATION

Periodic Table 4.0.6

In addition to giving you basic periodic-table information, Periodic Table 4.0.6 (♦♦♦♦) provides property-specific tables (for example, physical and bonding properties), a molecular-mass calculator for compounds, customizable graphs and tables (including alternative table arrangements and the ability to build tables that include just the information you want), and a built-in chemistry glossary. Add to that more-detailed information on each element than you'll likely find in any other resource, along with the ability to generate a slew of educational graphs, and you have a handy tool for students, teachers, and professionals alike ($20; Synergy Creations, www.synergycreations.com).—DF

DASHBOARD

Radar in Motion 2.4

Weather mavens may find Dashboard's included Weather widget somewhat lackluster. Its icons are pretty enough, but what if you want more in the way of raw data? Then turn to Radar in Motion 2.4 (♦♦♦♦). This widget lets you watch animated radar and satellite maps from either Weather.com or the National Oceanic and Atmospheric Administration's Web site. You can add as many maps as you want and set them to cycle automatically or with the click of a button. Now you'll never be more than a keystroke away from knowing whether it's about to rain outside—even if your office doesn't have any windows (free; Kamal Aboul-Hosn, www.dividedsoul.net).—DM

AUDIO

Soundflower 1.2.1

Soundflower 1.2.1 (♦♦♦♦♦) lets you route audio from one program to another through the use of virtual audio devices. For example, you could set Skype's sound output to Soundflower as well, set GarageBand's sound input to Soundflower, and then record the audio from Skype into GarageBand. An included program, Soundflowerbed, sits in your menu bar and lets you monitor the audio through your headphones, your speakers, or another output device. Since Soundflower acts as a virtual audio device, you can also set it as the default input and output for programs that don't let you select audio sources (free; Cycling '74, www.cycling74.com).—DM

PHOTOGRAPH BY PETER BELANGER

GEMS FAVORITES

Andy Ihnatko
Technology columnist for the *Chicago Sun-Times*:

FlickrExport for iPhoto ♦♦♦♦;
macworld.com/2784
This plug-in provides seamless integration between my photo library and the service that lets me share my pics with the world—a no-brainer for any enthusiastic snapper.

Salling Clicker ♦♦♦♦♦;
macworld.com/1721
For God's sake, Apple, write this man a check. A Bluetooth phone is the one device that you have with you at all times. Who wouldn't want to always have the ability to control and communicate with his or her Mac?

SmartReporter ♦♦♦♦;
macworld.com/2783
I've had this installed in my menu bar—and have been nervously eyeing it regularly—since the day three years ago when my PowerBook's hard drive failed.

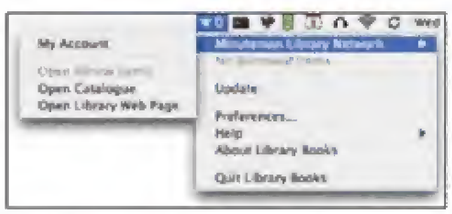
VLC media player ♦♦♦♦½;
macworld.com/1684
I'm still thrilled and surprised that a program this good and handy is still free and still energetically updated. It's a must-have, if only because it's the easiest way to watch a DVD and still be able to make screen grabs.

Organize Your Life

ORGANIZATION

ComicBookLover 1.2 △

ComicBookLover 1.2 (♦♦♦½) is the iTunes for digital comics, letting you organize and read comic-book files stored on your hard drive. Yes, as with iTunes, those files could be illegally downloaded from the Internet. But legal downloadable comics are on the rise, and ComicBookLover is also compatible with the files on the DVD comic collections that major publishers are releasing. ComicBookLover lets you view comics in a window or in full-screen mode, offers an iTunes-style interface for filtering your collection, and lets you browse comics via its handsome cover-gallery feature ($25; Bitcartel, www.bitcartel.com).—JASON SNELL



UTILITY

Library Books 2.5 △

As high-tech as our lives may be, most of us still enjoy reading actual books from time to time. Library Books 2.5 (♦♦♦♦) brings your local library into the digital age by letting you see at a glance how many items you've checked out of the library, when they're due, and even (in some cases) how many items you've requested. You can set up accounts for multiple libraries—a school and a public library, for example—or keep track of multiple people's accounts. Library Books even integrates with iCal to remind you when your due dates are getting close, which should help you avoid fines. With nearly 200 library systems supported in the United States (plus dozens from eight other countries), there's a chance your library is included. If you don't see it listed, you can try one of the several included generic catalog systems (payment requested; Harold Chu, haroldchu.id.au).—DM

ORGANIZATION

ReceiptWallet 1.1.1

If you've got shoeboxes full of paper receipts—or folders full of PDF versions on your Mac—ReceiptWallet 1.1.1 (♦♦♦♦) can help you unclutter your life. Drag your PDFs or scanned receipts into ReceiptWallet, or use one of many TWAIN-compliant scanners to scan in the paper versions directly, and the software will keep them all organized (and accessible) for you. And if you take the time to enter a few pertinent details—such as the date, the store, the amount, and a category or two—you'll get a searchable database of your purchases that lets you immediately find any receipt. You can create smart collections based on criteria such as categories, dates, and stores—useful for putting together expense reports, maintaining warranty records, or tracking how much you've spent on utilities, for example. You can even export data as CSV or Quick CIF files ($30; GGT Enterprises, www.receiptwallet.com).—DF

EDUCATION

Schoolhouse 2.1

With lots of word processing, calculation, and Web research tools available for OS X, your Mac is terrific at helping you do your homework. Now, with Schoolhouse 2.1 (♦♦♦♦), you can use your Mac to manage your homework, too. The software uses a three-panel interface that will be familiar to anyone who has used iTunes. Smart notebooks let you filter assignments by specific criteria—for example, by due date, priority, or course name. Schoolhouse also tracks assignments, tasks, and class notes; reminds you when papers are due; calculates and graphs grades; and even lets you publish assignments online, via a Classcasting feature that works with .Mac, FTP, SFTP, and WebDAV services. You can also use Schoolhouse to track e-mail requests to your instructor (payment requested; Altered Axis, www.loganscollins.com).—PETER COHEN

Schoolhouse 2.1

UTILITY

Spanning Sync 1.0.4

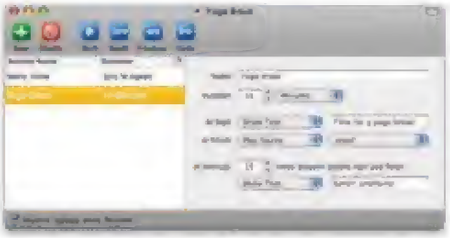
The free, Web-based Google Calendar lets you manage your schedule online. Like iCal, it lets you define multiple calendars (to keep work, personal, and family events separate, for example) and subscribe to public calendars, such as sports schedules, holidays, and movie releases. It can even send an SMS message to your mobile phone to alert you to an upcoming event—and unlike iCal, it can do so even when your computer isn't running. Offering the best of both programs, Spanning Sync 1.0.4 (♦♦♦♦) provides two-way synchronization between iCal and Google Calendar without requiring you to reinput data in either place. Enter your Google user name and password into Spanning Sync's preference pane, select one or more iCal calendars, and specify which Google calendar to sync each with. Changes made on either side will be reflected in both places ($65; yearly subscription, $25; Spanning Sync, www.spanningsync.com).—JK

Work Faster

WEB

1Passwd 2.4

Most Web browsers can store user names, passwords, and other data, and then automatically put them into Web forms when necessary. But 1Passwd 2.4 (★★★★½) extends this capability, letting you store more than one set of information per site, save passwords in one browser and use them in another, and create new passwords whenever you need to. You can even generate, store, and enter the password for a new site, all with a single click. 1Passwd relies on OS X's Keychain technology but uses its own keychain for extra security. In addition, 1Passwd protects you against phishing attempts and keyloggers, and optionally syncs its keychain using .Mac ($30; Agile Web Solutions, 1passwd.com).—JK



PRODUCTIVITY

FlexTime 1.2 △

There are plenty of alarm and reminder utilities, but most are designed to alert you to a specific event. FlexTime 1.2 (★★★½), on the other hand, keeps you on track for repeating or periodic activities—such as work breaks, exercises, or file backups. Event schedules include both an interval time and a duration (say, every two hours for ten minutes), and you can have FlexTime perform actions—for example, display or speak a message, play a sound, or run an AppleScript—at the beginning of an event, at the end of an event, a particular number of times during an event, or any combination thereof ($19; Red Sweater Software, www.red-sweater.com).—DF

ORGANIZATION

iGTD 1.4

I've used lots of tools to manage my to-do list, but I've never found one with the perfect combination of simplicity and features.

But iGTD 1.4 (★★★★) comes awfully close. Though it's based on the Getting Things Done productivity system, you don't have to be a GTD groupie to use it. Like most to-do software, iGTD lets you sort tasks by project, priority, and due date; like GTD, it also lets you group them by context (where or how you'll accomplish them). You can tag items with keywords, URLs, and contacts, and a menu-bar tool lets you quickly convert e-mail messages and files into to-do items (free; Bartek Bargiel, bargiel.home.pl).—DAN MILLER

PRODUCTIVITY

iKey 2.2.2

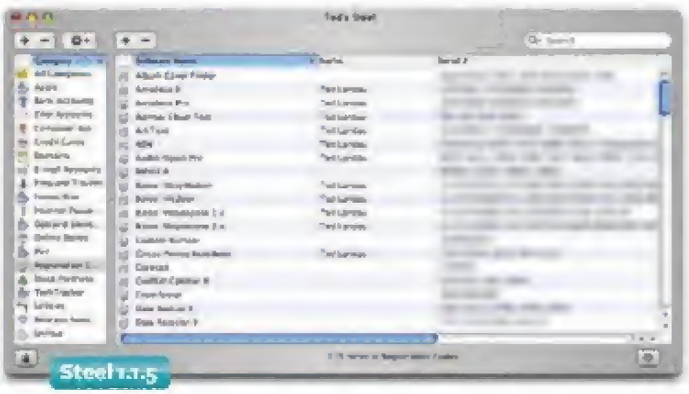
If you find yourself doing the same things over and over on your Mac—or if you prefer to use the keyboard as much as possible—you need a keyboard-automation utility. There are a number of these shortcut utilities, but iKey 2.2.2 (★★★★) occupies a desirable middle ground in terms of price and features. For each shortcut you create, you tell iKey what should happen (a single event or a sequence of events), when it should happen (in which programs or contexts), and what should trigger the action (for instance, a keystroke, a sequence of keystrokes, a scheduled time, or a USB-device action). iKey's range of possible actions is impressive, including launching applications, typing text, copying files, simulating mouse movements, and executing Unix shell commands ($30; Script Software, scriptsoftware.com).—DF

UTILITY

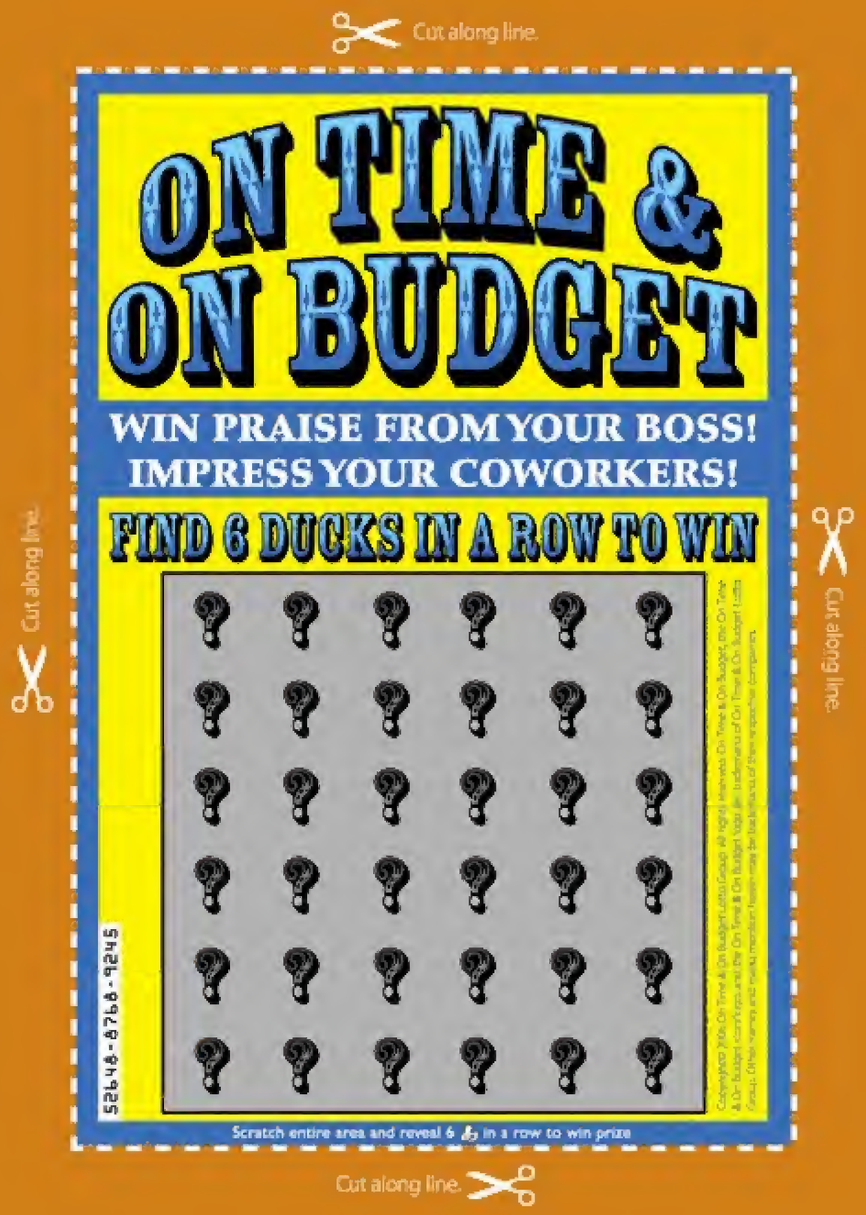
Steel 1.1.5

The problem: how to keep track of the dozens of registration codes, passwords, and related data you need to run your digital life. The solution: Steel 1.1.5 (★★★★), a no-nonsense, yet very capable, password-management utility. Steel displays data in a spreadsheet-like format, letting you see many items at once. If you need more assistance, you can use the Find dialog box to zero in on the item you want. You can assign entries to different categories. Each category has specific customizable fields—the e-mail category has fields for POP and SMTP servers, while the credit card category includes a field for the security code. Of course, the Steel database is itself password-protected—so you'll need to remember at least one password without Steel's help ($9; Gabriele de Simone, macworld.com/2601).—TL

Jeff Carlson is TidBits' managing editor; **Peter Cohen** is a *Macworld* senior editor; **Dan Frakes** is a *Macworld* senior editor; **Joe Kissel** is TidBits' senior editor; **Ted Landau** is a *Macworld* senior contributor; **Dan Miller** is *Macworld*'s executive editor; **Dan Moren** is a coeditor of MacUser.com; **Jonathan L. Seff** is *Macworld*'s senior news editor; **Jason Snell** is *Macworld*'s editorial director; **Kelly Turner** is *Macworld*'s senior features editor.



For those of you who aren't using OmniPlan, may we offer an alternative solution:

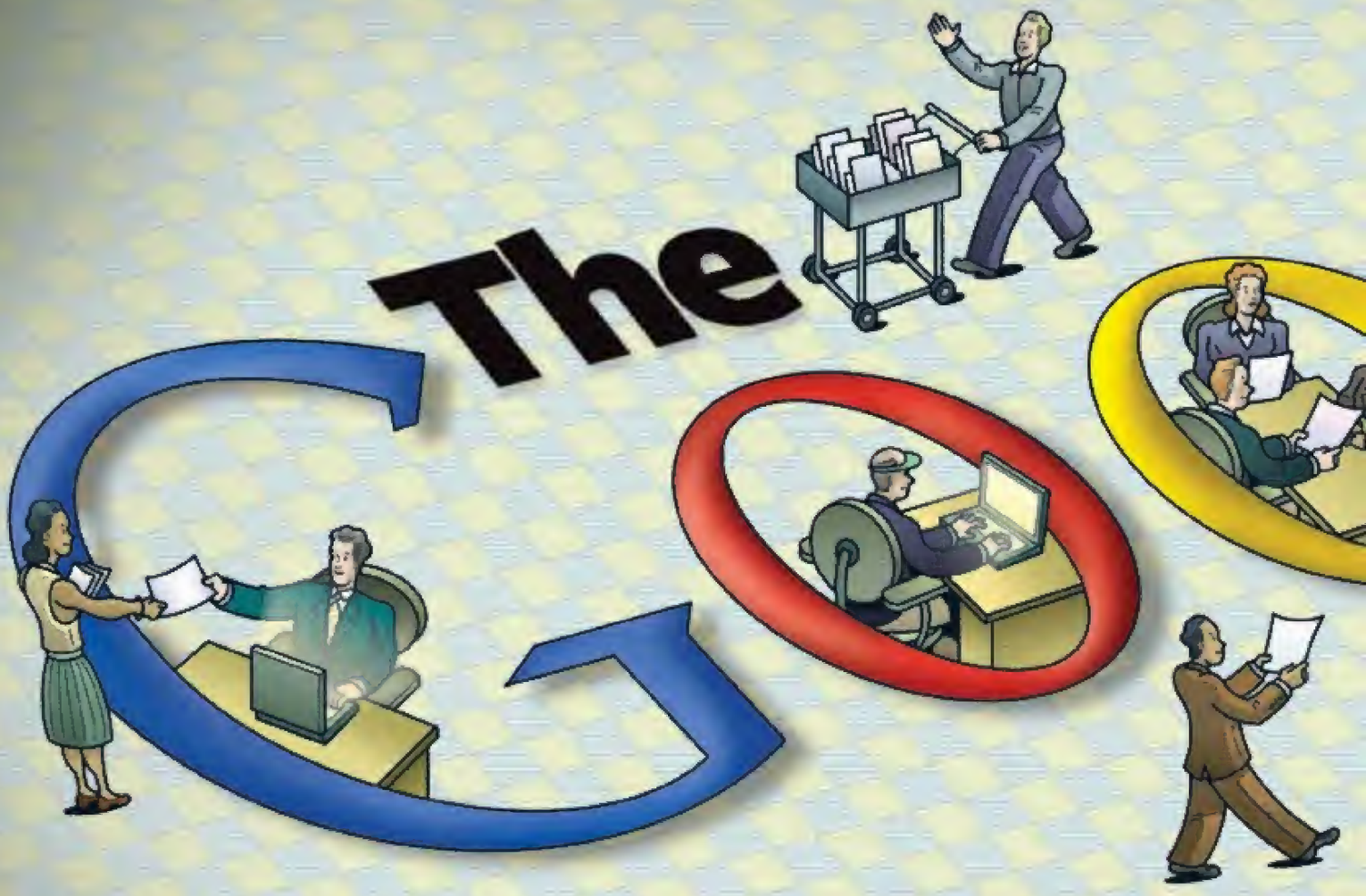


Of course, if you'd rather not gamble on the success of your projects, consider trying an application built to help you manage tasks, resources, and deadlines – all within an intuitive, easy to use interface.

OmniPlan

Project planning software for Mac OS X.
Free demo available. www.omnigroup.com/plan

CAN THE WEB GIANT'S SUITE OF FREE ONLINE PROGRAMS REPLACE YOUR COPY OF MICROSOFT OFFICE?



INSIDE:

Anywhere Wordsmith PAGE 62

Number Cruncher PAGE 64

Schedule Master PAGE 67

Mighty Messenger PAGE 68

Imagine being able to access all your important documents from any computer with an Internet connection—or never having to buy, install, or upgrade office software again. You may already use a Web-based e-mail service instead of an e-mail client, but the next programs to go online could very well be your word processor and your spreadsheet program. You can now get a lot done with only a humble browser.

The idea behind *Web applications* is simple: rather than running on your computer, a Web application runs on a server—you interact with it through your browser. These programs don't need to be updated and maintained on individual computers, and since your files are also stored on a server, you can access them from anywhere without schlepping a disk around.

Google is the biggest and best-known company that's generating buzz for a growing collection of Web applications. It includes a word processor called Docs and a spreadsheet program called Spreadsheets (both available at docs.google.com); a calendar called Google Calendar (calendar.google.com); and, of course, the Web-based e-mail service Gmail (www.gmail.com). The price for all of these programs is a whopping $0.

BY JOE KISSELL

Can these Web applications replace your $399 copy of Microsoft Office? If you have a slow or unreliable Internet connection, the answer is definitely no. But most people who do some word processing or spreadsheet work can benefit from Google's programs—either as a complement to Office or, in some cases, as a replacement.

I'll show you some of the coolest things these programs can do. To use them, you need a Mozilla-based browser, such as Firefox (www.mozilla.com). You also need a Gmail account or, if you don't want Gmail, a Google account (www.google.com/accounts).

ILLUSTRATIONS BY PETER AND MARIA HOEY

ANYWHERE WORDSMITH

» Until recently, no one would have thought seriously about doing word processing in a Web browser. Sure, you could write and do very basic editing in a big featureless text field, but the tools for working with text were primitive at best. As Google Docs capably demonstrates, those days are over. Docs both handles the basics and offers powerful collaboration features that make it easy to work on documents with other people.

Using Docs

If you use Microsoft Word, Docs will feel familiar. Docs supports several fonts; multiple text sizes and colors; bulleted and numbered lists; adjustable alignment and indentation; graphics; tables; links; and more. You can edit text by copying and pasting or by dragging and dropping, check spelling (in more than 30 languages), undo and redo multiple edits, and do most of the other things that you'd expect to do in a word processor.

Important features that you won't find include headers and footers, footnotes, text frames, tables of contents, cross-references, and a powerful find-and-replace feature.

Importing and Exporting Depending on what you need to do, Docs' lack of advanced text features might not be a problem. Its ability to work with Word, however, will likely be important. That's where the program's importing and exporting features come into play.

Docs lets you import Word documents (.doc), Rich Text files (.rtf), HTML files, plain-text files, and OpenDocument text files (.odt); each file can have a maximum size of 500K. To upload a file, go to the Docs & Spreadsheets home page and click on the Upload link. Then click on Browse, locate the file on your hard drive, and click on Open. (If the file is already accessible on a Web server, enter its URL instead.) Click on the Upload File button. (Complex formatting may be lost when you do this.)

You can also e-mail a file to your account. To do this, go to the Docs & Spreadsheets home page, click on the Upload link, and copy the special e-mail address shown there. Attach a supported file to a new message, and send the message to that address—the file will become a new Docs document. Alternatively, simply send an e-mail with text in its body to that address; the text will become the new document, and the message's subject will become the file's name. (The e-mail import feature tends to be flaky; your success may depend on which e-mail application and ISP you use, among other factors.)

Files you edit in Docs are stored online in your Google Apps storage space. The system saves your work periodically, as well as whenever you click on the Save button. You can also save files to your Mac in formats including Word, Rich Text, PDF, and HTML. This makes it easy to create a local backup copy or share a file with someone who needs to edit it in Word. You can also print your documents directly from Docs. However, Docs offers no control over document attributes such as margins, paper size, or page orientation.

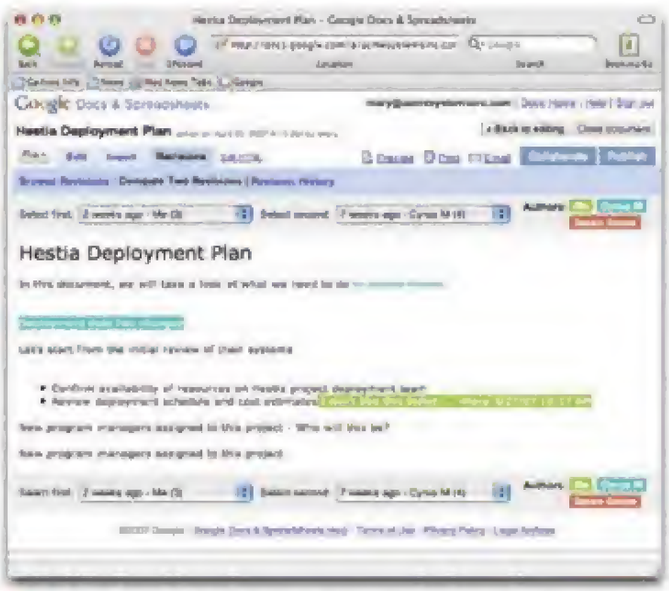
Instead of e-mailing files back and forth, with Docs, you edit the same file together online.

Tracking Revisions When you're repeatedly revising a document—especially if you're working on a file with other people—it can be helpful to see what has changed from one version to the next, and who made the changes. Docs isn't compatible with Word's Track Changes feature. (If you import a Word document with tracked changes, all the text in the document—even text that was marked as deleted—shows up in Docs as regular text. Comments entered in Word don't appear at all.) Instead, Docs takes a different approach. Every time your document is saved, manually or automatically, Docs stores a copy of that version. You can go back to any previous version and even compare two versions to see what the differences are. (This is similar to Word's Compare Documents feature.)

To work with revisions, click on the Revisions tab. Select a previous version of the file by choosing it from the pop-up Revision menu. The selected version will appear in the window. To continue using this version, click on Revert To This One, and click on OK when the confirmation alert appears. (You can go back to any of the other revisions later.)

To find out what changed between one version and another, click on the Compare Two Revisions link and select the versions to compare from the two pop-up menus. Text added to or deleted from the newer version appears in a color that indicates who made the change (see "Keep Track of Changes").

Collaborating Docs really shines when several people need to work on the same document. Without Docs, you might end up e-mailing files back and forth numerous



Keep Track of Changes When using Google Docs' Revisions feature, you can compare any two versions of a document.

times—risking garbled attachments and version conflicts. With Docs, you can all edit the same document together online, thus avoiding those problems.

To grant other people permission to view or edit any document, click on the Collaborate tab, select As Collaborators (to give editing access) or As Viewers (to give read-only access), and enter one or more e-mail addresses. Then click on Invite Collaborators, type a message (optional), and click on Send. Each collaborator will receive a message with that document's URL. Although you can send these messages to any address, collaborators must have a Google account to log in and view or edit the document, and they must sign in using the address you sent the invitation to. The names of people viewing or editing the document appear at the bottom of the screen.

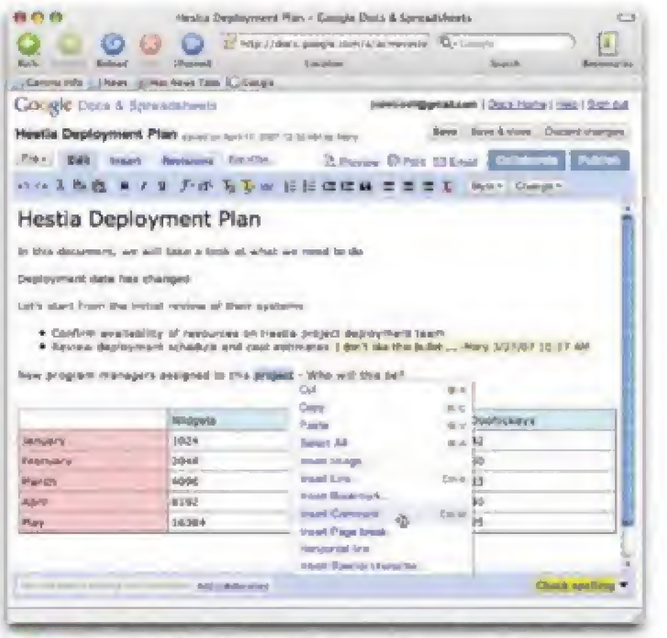
You can also publish your document so that even people without Google accounts can see it. Click on the Publish tab, click on Publish Document, and copy the URL. You can link to this URL from a Web site or e-mail it to anyone who needs to see the document.

Docs Tips

For anyone familiar with Word, Docs will be mostly self-explanatory. Just click on the New Document link (or click on an existing document to open it) and start typing. But to get even more out of Docs, try these tips.

Save Frequently Even though Docs saves your work periodically, it doesn't do so as often as Google Spreadsheets does. If your browser crashes or you inadvertently close the window at the wrong time, you could lose your work without warning.

Discover Hidden Options If you're at a loss for how to perform an action, try right-clicking (or control-clicking) on the document's text or on an element, such as a table or an image. A contextual menu will provide helpful commands (see "Uncover Hidden Commands").



Uncover Hidden Commands Google Docs doesn't have many menus, but it does have extensive support for contextual menus. Right-click (or control-click) on a text selection, an image, or a table cell, for example, and a selection of relevant commands appears.

Publish to Your Blog Want to publish a document directly to your blog? Don't miss the Post To Blog link on the Publish tab. Once you've entered your blog site settings, you can quickly get your thoughts online.

Search Your Files Use the Google search box at the top of your Docs & Spreadsheets page to search all your documents or the Web. Because it's a Google search, you can use many standard Google features—such as quotation marks to enclose a phrase, or the minus sign (–) to exclude a word from results.

Use Keyboard Shortcuts Even though you're working in a Web browser, Google provides some keyboard shortcuts for common tasks within both Docs and Spreadsheets. They use the control key instead of the ⌘ key. For instance, press control-S to save, control-Z to undo, and control-B to make text boldface. (Find the complete list of shortcuts at macworld.com/2746.)

Is It for You?

Google Docs is great for collaborating with others on a simple document or accessing documents while you're away from your usual computer—say, when you're working in a computer lab. But to use Docs as your *only* word processor, you must always have a reliable high-speed Internet connection. If you need to work on Docs documents offline, you have to use Word, TextEdit, or another common word processor, which means exporting and then reimporting files.

FOR YOUR EYES ONLY

One big difference between storing your documents on your computer and storing them on Google's servers is that you no longer have complete control over who might see them. What if Google were required to hand over your highly confidential data to the government? What if a Google employee performing routine maintenance stumbled across a spreadsheet outlining your top-secret business plan?

Google's detailed privacy policy spells out the company's guarantee that it will keep your information safe (see particulars for Docs and Spreadsheets at macworld.com/2750, and for Gmail at macworld.com/2751). Respecting its customers' privacy is certainly in Google's best interest—a well-publicized breach of privacy could result in a significant loss of business. However, it's also true that Google saves many copies of your data in various locations around the world, and that deleting something from your account doesn't immediately delete it from all those backups. Theft, corporate espionage, or actions by a disgruntled employee could put your information into the wrong hands.

You might already trust Google (or another provider) to store your e-mail messages. The risk with data contained in documents and spreadsheets is no greater. However, if you're working with state secrets, confidential medical records, or other sensitive information, storing it online—anywhere—in an unencrypted form is asking for trouble.

NUMBER CRUNCHER

If you carry a laptop around just so you can show clients your latest marketing forecasts or call up sales figures at company meetings, you can save yourself some bother by using Google Spreadsheets instead. The program provides editable spreadsheets that are compatible with Microsoft Excel—and, best of all, you and your colleagues can modify them simultaneously.

Using Spreadsheets

When you open a new document in Spreadsheets, you see a standard spreadsheet grid with resizable rows and columns, and the usual array of options for formatting. You enter text or numbers in spreadsheet cells, as you would with any other spreadsheet application. Using icons and menus on the toolbar, you can merge cells; apply borders and highlighting; change fonts, font sizes, and styles; and choose whether to wrap text within a cell. You may miss some of Excel's more-advanced features, but for basic data formatting and calculations, the necessary features are there.

Formulas and More You can enter Excel-style formulas manually, or click on the Formulas tab to see links that quickly insert Sum, Count, Average, Min, Max, and Product formulas. For more options, click on the More link to display a pop-up list of hundreds of formulas (see "Hundreds of Formulas"). Hover over a formula name to see its syntax, or click to insert it in the active cell. Spreadsheets lacks advanced Excel features such as macros, PivotTables, auditing, data filtering, and validation.

Creating Charts If you need to create a quick visual representation of your data, such as a pie chart or a bar graph, Spreadsheets can help. Begin by selecting the range of cells you want to chart, and then click on the pie-chart icon in the toolbar. Select the type of chart you want to make, and supply any optional data you choose—such as a title, or labels for horizontal and vertical axes. Click on Save Chart. The chart will appear right on top of your spreadsheet; you can move it or resize it by clicking and dragging. Note that although your spreadsheet can include multiple charts, a Spreadsheets chart cannot represent noncontiguous ranges of cells.

Importing and Exporting You can upload Excel spreadsheets (.xls), comma-separated text files (.csv), and OpenDocument spreadsheets (.ods) in one of two ways (and as with Docs, there is a 500K size limit).

The first method is to go to the Docs & Spreadsheets home page, click on the Upload link, and follow the instructions for uploading a file, just as you would for a text document.

Alternatively, when you're viewing an existing Spreadsheets file, you can choose Import from the File pop-up menu, click on Browse, locate the file on your hard drive, click on Open, and then click on the Open Now link. At press time, importing via e-mail was not available. Also, unlike Docs, Spreadsheets currently has no option that lets you e-mail a finished document directly from the program.

Hundreds of Formulas Google Spreadsheets' formulas are available through this pop-up window, which appears when you click on the More link. Hover over a formula to see its syntax, or click to insert it in your spreadsheet.

Working with Multiple Sheets As in Excel, each document can have multiple sheets. To create a second sheet, click on the Add Sheet button at the bottom of the document window. You can rename or rearrange the current sheet by clicking on its name and choosing Rename, Move Left, or Move Right from the pop-up menu. You can also cut and paste cells from one sheet to another. For best results, use the toolbar's Cut, Copy, and Paste icons.

Tracking Revisions The Spreadsheets program automatically saves your work after almost every change, as well as when you click on the Save & Close button. To see any previous version of a file, click on the Revisions tab

and select the version you want from the Revision pop-up menu. Although Spreadsheets tracks revisions, it doesn't highlight specific changes in each version, as Excel's Track Changes feature does, nor does it let you compare two versions, as Docs does.

Collaborating Sometimes you need input from several people—for instance, forecasts from the sales department, history from accounting, and strategy from project management. Spreadsheets makes it easy for multiple people to view and edit the same spreadsheet simultaneously. As with Docs, you can publish your spreadsheet to a Web page where anyone can see it. You can also export your spreadsheet in a variety of file formats, and invite other people to collaborate on it with you.

Use the form on the Collaborate tab to invite other people to edit or view a spreadsheet. To make the spreadsheet available to anyone with a Google account, click on Allow Anyone To View. The site produces a URL that you can send to anyone you want. To publish your spreadsheet for anyone to view without logging in, click on the Publish tab and then on Publish Now.

Have a quick question about a spreadsheet change? Because Google's chat program, Google Talk (www.google.com/talk), is integrated with Spreadsheets, you can have a live chat with every collaborator who's currently viewing or editing the same spreadsheet (see "Spreadsheet Chat"). Click on the Discuss tab to see a list of available collaborators. Type your message into the field at the bottom, and a message pops up on the other users' screens, asking them to join the chat.

Spreadsheets Tips

Because Spreadsheets shares many interface elements with Excel, most people should be able to pick up the basics without ever looking at the online help documentation. But a few interesting features may not be evident at first glance.

Look Up Data on the Web One thing Spreadsheets offers that Excel doesn't is a pair of special functions that rely on Google's extensive index of Web-based information. Access these functions by clicking on the Formulas tab, clicking

GROUP DYNAMICS

All the Google applications described in this article are available free, à la carte, to individual users. But Google also offers them in a special package known as Google Apps (formerly called Google Apps for Your Domain). The big difference is that if you own a domain and you sign up for Google Apps, Google can essentially take over hosting your domain's e-mail and Web site—for free or a very low price. You get the full power of Gmail, but with addresses in your own domain name (rather than *@gmail.com*). And you get all the collaboration features of Docs, Spreadsheets, and Calendar for your group, as well as the ability to add as many users as you wish.

Google Apps comes in three editions. All three give a group administrator the ability to set up user accounts and control how users share various kinds of information within and outside the group's domain. To give the programs a corporate flair, organizations can use their own logo on each page and provide companywide information on each user's start page (see "Custom Apps").

The free Standard Edition is probably what you'll want if you just need to run a small business's Web site or manage your family's domain online. It includes Docs, Spreadsheets, Gmail, Calendar, Google Talk, and Page Creator (an online Web-design program), but it offers less storage (2GB per user) than the Premier Edition and no advanced features such as telephone support or conference-room scheduling. The Premier edition costs $50 per year—for an entire organization—and adds more e-mail storage space (10GB per user); it also includes telephone support and several other administrative features. The Education edition is free to accredited institutions. It's similar to the Premier edition but includes less storage (only 2GB per user) and gives the option of removing advertisements from students' e-mail. (See macworld.com/2755 for more details about the editions.)

To sign up for Google Apps for a group, visit www.google.com/a/, click on the Get Started button, and follow the prompts. If you don't already own your own domain name, you can search for and purchase one during sign-up for $10 per year. You can use Google Apps without interrupting your domain's existing Web and e-mail services, but if you want Google to host your domain's e-mail or Web site, you must follow Google's instructions for modifying your DNS records.

Custom Apps When you subscribe to Google Apps, you can add your corporate logo to each user's start page; users can also add or rearrange items on their individual pages, including news items, weather reports, and access to company resources (such as a phone directory).

on the More link, and then choosing Google in the Insert A Function box.

The first function, GoogleFinance, gives you an easy way to insert dynamic information about publicly traded companies and mutual funds. For example, you can enter `=GoogleFinance("AAPL", "marketcap")` in a cell to display Apple's current market capitalization. You can access stock prices, mutual-fund net asset values, and many other types of data with this function.

The second function, GoogleLookup, lets you insert a wide variety of statistical data that can be inferred from Web searches. This formula takes two arguments—an entity (what you want information about) and an attribute (the information you want about the entity). Entering `=GoogleLookup("France", "population")` in a spreadsheet cell, for example, displays the current population of France (a little over 63,000,000). Entering `=GoogleLookup("Halle Berry", "place of birth")` gives a result of *Cleveland, Oh*, and typing `=GoogleLookup("platinum", "atomic weight")` displays `195.084(9) g·mol`. GoogleLookup can't display every piece of information you may want, but it can make entering some data much easier.

Fill In a Range of Values Spreadsheets doesn't have a feature comparable to Excel's AutoFill, which intelligently extends a series into new rows or columns. But it does have a limited fill feature for columns. Start by entering a formula that refers to the cell immediately above it. For example, suppose cell D1 contains the value *18*. Enter a formula—for instance, `=D1+1`—in cell D2. Then select (using the mouse or keyboard) cell D2 (but not D1) and a few cells below it. Press control-D, and Spreadsheets applies the formula you entered to all the selected cells—if you entered `=D1+1`, cells D3 through D5 would contain *20*, *21*, and *22*.

Put Part of a Spreadsheet on a Web Page Sometimes you may want to embed just a portion of a spreadsheet in a Web page (or in, say, a blog entry), rather than providing a link to the whole file. To do this, go to the Publish tab and click on Publish Now. Next, click on the More Publishing Options link, which opens a new window. From the File Format pop-up menu, choose HTML To Embed In A Webpage.

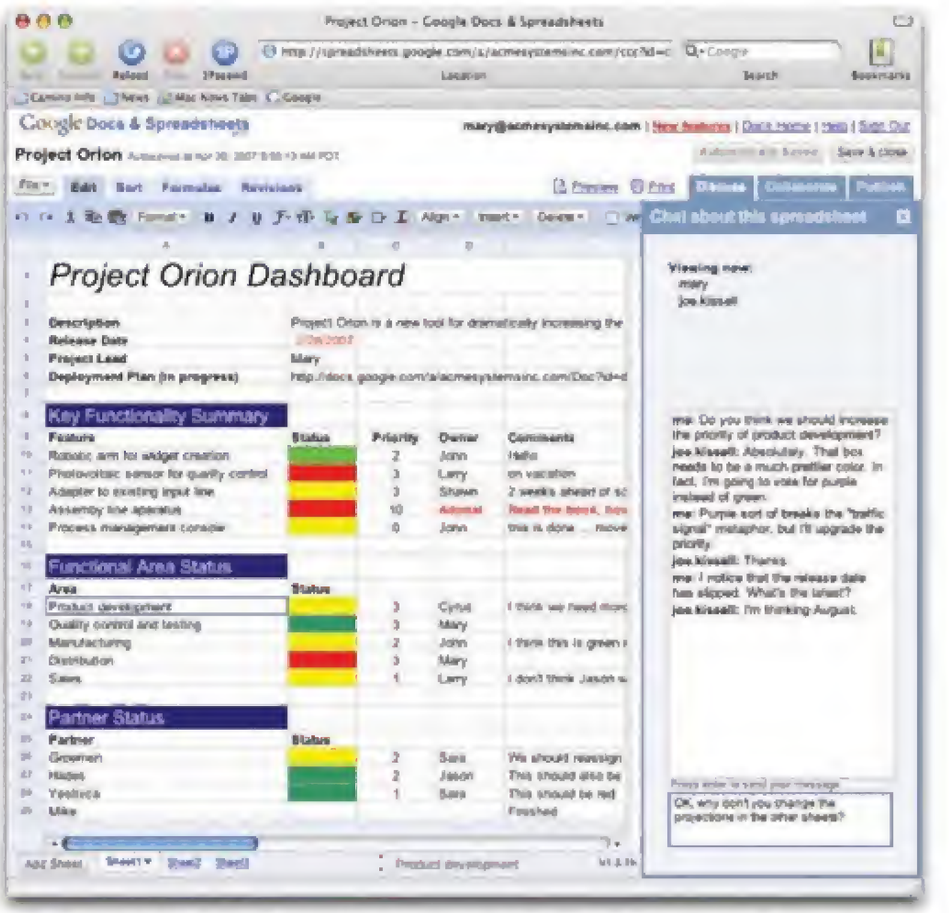
Select the sheet containing the cells you want to publish, and enter a range of cells on that sheet (such as `A1:D5`). Click on Generate URL, and copy the code that appears in the box. Paste this code into your blog or Web page to display the selected portion of your spreadsheet there. (If you select the Publish tab's Automatically Update Every 5 Minutes option, the spreadsheet copy on your blog or Web page will dynamically reflect changes made to your spreadsheet, without manual intervention.)

Spreadsheets lets you tap into Google's extensive index of Web-based information.

Is It for You?

Google Spreadsheets is a good choice for maintaining everything from shopping lists to product-launch plans, especially if you want several people to be able to view or modify them. And even though it lacks some of Excel's flashier features, Spreadsheets can crunch numbers—including highly complex formulas—with the best of them. For traditional spreadsheet tasks such as tracking sales figures or account balances, Spreadsheets is a perfectly capable application. It's also a good option for people who want basic spreadsheet capabilities but can't afford Excel, or who often need to do quick calculations when they're away from their regular computers—while traveling, for example.

Just like Docs, however, Spreadsheets is useless when you're not connected to the Internet. And if you need high-powered features, you'll have to turn to Excel or another full-featured spreadsheet application.



Spreadsheet Chat Multiple people can not only edit a Google Spreadsheets document simultaneously, but also carry on a live chat while doing so. All collaborators who are currently viewing the spreadsheet appear in the Discuss tab.

SCHEDULE MASTER

Google Calendar is very much like an online version of iCal. You can store events such as appointments and birthdays; set up meetings that you invite other people to attend; make events repeat on a schedule; view your events by day, week, month, or other time periods; set alarms; publish your calendars so that others can see your events (even in iCal!); and subscribe to public calendars such as lists of holidays and sporting events. And as in iCal, you can move an event simply by dragging it to a new time or day on the calendar.

Calendar Tips

Learning Calendar is easy. But these tips may help you put it to better use.

Use the Quick Add Feature You can add a new event by clicking on the Create Event link and filling out the form with all the details, but for many events, there's an easier way. Click on the Quick Add link, type in a brief description, and press return (see "Fast Scheduling"). Calendar tries to turn your description into a specific date and time. For instance, type `Mireille's birthday on Thursday`, and Calendar immediately adds that event on the next Thursday. Since you didn't specify a time, the event is entered as an all-day event. If you enter `Lunch with Robert noon tomorrow`, Calendar blocks out a one-hour lunch beginning at noon tomorrow.

Subscribe to Public Calendars In addition to tracking meetings and appointments, Calendar (like iCal) lets you subscribe to calendars containing sports schedules, phases of the moon, holidays, and other events you may care about. To subscribe to one or more of these calendars, click on the plus-sign icon (+) next to Other Calendars in the Calendars box. Then go to the Browse Calendars tab, and choose from among numerous calendars maintained by Google. Or go to the Search Public Calendars tab, and type in search terms (such as `movie releases`) to find matching calendars. When you find a calendar on either tab that you want to use, click on Add Calendar.

Fast Scheduling Using the Quick Add field, you can add an event to your calendar without having to fill out a whole form.

Try Cell Phone Notification By default, when you're logged in to Google Calendar, reminders of upcoming events pop right up on your screen. You can also choose to have reminders e-mailed to you or SMS notifications sent to your cell phone.

To set this up, click on the Settings link at the top of the page, and go to the Mobile Setup tab. Enter your cell phone number in the Phone Number field, choose your carrier from the list, and click on Send Verification Code. Calendar will send you an SMS message containing a numeric code. Enter that code in the Verification Code field and click on Finish Setup. Verify that the SMS Event Reminders option is selected, and click on Save. From now on, you'll get SMS reminders of upcoming events (ten minutes ahead of time).

Is It for You?

Google Calendar has most of the major features found in high-end corporate scheduling systems, but its interface is as understandable as iCal's. So it makes for a fine all-purpose calendar program. If you need to share calendar information with others, Calendar gives you a great deal of flexibility. And unlike iCal, it can remind you of upcoming events even when your computer is turned off.

Still, cell phone notification notwithstanding, Calendar isn't the best place to keep your schedule if you spend a lot of time disconnected from the Internet.

MIGHTY MESSENGER

Google wasn't the first company to offer free e-mail accounts that you could access in a Web browser. But Gmail provides an unusually hefty amount of storage (at least 2.8GB per user), excellent spam filtering, and the convenience of fast, reliable Google searching through all those gigabytes of stored e-mail. Plus, you get all this in exchange for nothing more than some small, relevant, and unobtrusive text ads that appear near your messages in your browser window.

Using Gmail

Gmail has many (though by no means all) of the same capabilities as a desktop e-mail client such as Apple Mail or Microsoft Entourage. You can sort your messages with filters, categorize mail with labels, and compose fully formatted HTML messages. And because Gmail is a Web application and your messages are stored on Google's servers, you can access your messages from any Web browser.

Application Hopping Gmail is well integrated with the other Google applications, too. For example, if you receive an e-mail message with an attached Word or Excel file, you can click on it to open it directly in Docs or Spreadsheets. If you receive a meeting invitation, you can add it directly to your Google Calendar; you can also create a meeting request while composing a new e-mail message and add it to your calendar at the same time.

Chatting with Friends Gmail is integrated with Google Talk, which means that you can reply to an e-mail message with an instant message if the sender is online, and you can do so without even having to open a new window. Transcripts of all your chats and e-mail messages are saved (and searchable).

Label It Use Gmail's labels—descriptive words or phrases—to help you locate e-mail messages related to a specific project or topic. To apply a label, select one or more messages and choose the label name from the More Actions pop-up menu.

Gmail Tips

Gmail has lots of tricks up its sleeve, and learning about some of them can make your life easier. Here are my favorites.

Use Keyboard Shortcuts Like Docs and Spreadsheets, Gmail offers an extensive array of keyboard shortcuts—such as C for Compose Mail and R for Reply—but they're disabled by default. To turn them on, click on the Settings link at the top of the Gmail window. Go to the General tab, select the Keyboard Shortcuts On option, and click on the Save Changes button. When you return to your inbox, you'll see a few sample keyboard shortcuts (for a complete list, see macworld.com/2746).

Use the Archive Button Even though Gmail makes it easy to search through gigabytes of e-mail, there's no reason to let every single message you've ever received clutter your inbox. Once you've read, replied to, or dealt with a message, select it and click on Archive. This moves the message out of your inbox, without putting it in a specific mailbox. (To see all your messages, even the archived ones, click on the All Mail link.)

Label Your Messages Google's searching is good, but sometimes it isn't as smart as you might like—for instance, when you have 985 messages that include the words *Apple* and *Jobs*, but you need to find the few that pertain to your search for employment in Cupertino.

Labels can help. These text tags let you group messages by topic, and they take the place of a hierarchy of folders or mailboxes. They make searching easier and more accurate, too. To create a new label, click on the Edit Labels link in the Labels box. Type a label name in the Create A New Label field, and click on Create. To apply a label to the current message or selected messages, select the label from the More Actions menu (see "Label It").

Help Google Fight Spam Gmail has an excellent spam filter, which routes suspected spam into your Spam mailbox. If a spam message gets through to your inbox, be sure to select it and click on Report Spam; this helps Google improve its spam-filtering accuracy.

Forward Mail to Your Phone In most e-mail programs, filters (or rules) based on messages' senders, subjects, or contents are used to file messages into mailboxes. In Gmail, you can use filters to label your mail, but a more interesting use is to forward selected messages to your cell phone as SMS messages. (Most cell phone carriers provide a special format for converting your cell phone number into an e-mail address; see macworld.com/2747 for a list.)

Click on the Create A Filter link at the top of the Gmail page. Now fill in some criteria for messages that you want forwarded to your phone. Keep in mind that you should do this with only a small number of brief messages, so choose your criteria accordingly—for example, mail from your spouse with the word *urgent* in the subject line. Then click on Next Step, select Forward It To, and enter your cell phone's e-mail address. Click on Create Filter. Now, to test the filter, send yourself a message (or have someone else send one) that meets the criteria you entered.

Take Gmail with You Like any Web-based e-mail service (and like the other Google Web applications), Gmail works only when you're connected to the Internet. Sure, you could set up POP access to your account through your favorite e-mail client, but then you might encounter problems keeping all your messages in sync. You'll also waste a lot of space storing all those messages on your hard drive. Instead, try installing Google Desktop (●●●; macworld.com/2748), a free new desktop search utility. One thing it does is index your Gmail messages and cache them locally in a highly compact form, so you can search and read your Gmail messages even when your computer is offline.

Is It for You?

Gmail is reliable, versatile, and easy to access from almost anywhere. If you're using other Google programs heavily, it can also help you by allowing you to switch applications less frequently. Still, it won't work for everyone. Although it's possible to access your Gmail messages when you're offline (using Google Desktop or a POP client), you lose all integration with other Google applications. That makes Gmail less than ideal for people who need to spend a great deal of time without Internet access.

Using Gmail as a secondary e-mail address is a no-brainer.

Regardless, using Gmail as a secondary e-mail address is a no-brainer. It makes for a convenient backup if you have trouble accessing your main account.

Joe Kissell is the senior editor of TidBits (www.tidbits.com) and the author of *Real World Mac Maintenance and Backups* (Peachpit Press, 2007).

4 EXCELLENT ADD-ONS

Wish Google Apps could do more? A piece of add-on software might help. Here are four of my favorites.

1 Address Book to CSV Exporter (free; www.antoniolore.net) exports your OS X Address Book in comma-delimited format so you can import it into your Gmail account. Note that this doesn't solve the problem of syncing your contacts—if they change, you'll have to import them again.

2 gDisk (free; gdisk.sourceforge.net) lets you put ordinary files and folders in your access-from-anywhere Gmail storage space. That means you can use your Gmail account as a convenient backup location when you're on the road.

3 Google Notifier (free; macworld.com/2752) displays alerts in your menu bar when you have an upcoming event in Google Calendar or new messages in your Gmail inbox. If you're using the Google Apps package for your domain, a third-party utility called Google Hosted Mail Notifier (macworld.com/2753) can alert you to waiting e-mail messages.

4 Spanning Sync (one-time purchase, $65; yearly subscription, $25; www.spanningsync.com) lets you perform two-way synchronization between your iCal calendars and Google Calendar.

BEYOND GOOGLE

Although Google is the big name in free Web-based office tools, it's not the only game in town. Here are some similar programs.

PRODUCT	WORD PROCESSING	SPREADSHEETS	E-MAIL	CALENDAR	CHAT	PRESENTATIONS	WEB-PAGE CREATION	PROJECT MANAGEMENT	COMMENTS
Glide glidesociety.com	●	○	●	●	●	●	●	○	Offers a large collection of free online services delivered in a rather cumbersome Flash-based interface.
iNetWord www.inetword.com	●	○	○	○	○	○	○	○	Reasonably full-featured Word-compatible online word processor.
ThinkFree Online Office www.thinkfree.com	●	●	○	○	○	●	○	○	Word processor and spreadsheet programs are closer to Word and Excel in functionality than Google's.
Zoho Office Suite zoho.com	●	●	○[1]	●	●	●	●[2]	●	This suite is generally considered to be Google Apps' primary competitor.

● = yes, ○ = no. [1] At press time, this feature was in private beta testing. [2] For creating forms and online database applications, not generic Web sites.

Fix Password Glitches

Keychain on the blink? Forgotten a password? Here's what to do. **BY JOE KISSELL**

Is password overload getting to you? With banks, e-commerce sites, and discussion forums—not to mention Mac OS X—all requiring logins and passwords, it's becoming increasingly difficult to keep a handle on everything. Of course, as the number of passwords you use increases, so does the possibility that something will go wrong. From misbehaving keychains to simple forgetfulness, password problems can cause untold grief. Here are six common glitches and how to overcome them.

1. Corrupt Keychain

Problem: I keep getting prompts to enter my password, even though I know it's in my keychain.

Solution: Mac OS X's Keychain provides a handy way to store user names and passwords for servers, Web sites, and other resources. Usually it works invisibly in the background. However, if the keychain file becomes damaged, you may not be able to save new passwords, or an application such as Apple's Mail or iChat might ask you to enter a password you've already stored. A corrupted keychain can even cause applications to crash.

If you suspect that you have a damaged keychain, open the Keychain Access application (/Application/Utilities/) and choose Keychain Access: Keychain First Aid. In the box that appears, enter your login password and select either the Verify option, which merely checks the keychain, or Repair, which checks for and fixes errors. Click on Start. Keychain First Aid reports any errors that it finds and repairs.

2. The Same-Password Blues

Problem: I know it's safer not to keep using the same password. But it's hard to come up with new passwords all the time.

Solution: Although many people reuse the same password for various purposes, it's more secure to make each password unique. You don't have to exert mental energy on this job—your Mac can come up with ideas for you. It can also give you tips for improving passwords you already have.

Mac OS X includes a password-generator tool called Password Assistant, but you can access it only at certain times—for example, when you're setting up a new account in System Preferences or creating a new keychain in Keychain Access. (You'll see a key icon next to the field where you're supposed to enter a password. Click on this icon to access the tool.) Take full advantage of this tool's powers by using codepoetry's free Password Assistant (macworld.com/2768), which lets you access Password Assistant as a stand-alone program. The codepoetry application works only with OS X 10.4 (Tiger). If you haven't upgraded, try David Kreindler's free RPG (macworld.com/2769), which works similarly and runs on Mac OS X 10.3 (Panther).

Password Assistant lets you set the password's length via a slider and adjust its complexity via the Type pop-up menu (see "Choose Secure Passwords"). For example, choose Letters & Numbers; Memorable, which mixes common words with numbers and punctuation; or Random, which includes letters, numbers, and special characters. If you don't like the first suggestion, pick another from the Suggestion pull-down menu. Or generate another set by changing a setting or selecting More Suggestions from the Suggestion menu.

You can also use Password Assistant to test your own passwords. Type one in the Password field. The tool rates the password's quality and gives you tips for improving it.

3. Autofill Won't Fill

Problem: My Web browser is supposed to autofill my passwords, but sometimes it refuses to comply.

Solution: Apple Safari, Mozilla Firefox, and most other popular browsers can remember user names and passwords for Web forms and fill them in at your command. To turn this feature on in Safari, choose Safari: Preferences and select User Names And Passwords under

ILLUSTRATION BY JACK HORNADY; ICONS BY PAUL HOWALT

AutoFill. In Firefox, go to Firefox: Preferences, click on Security, and enable the Remember Passwords For Sites option.

However, autofill doesn't always do the job. For example, as a security measure, some sites block autocompletion of certain fields. Also, if you have multiple user names and passwords for a particular site, your browser can't tell which one to use.

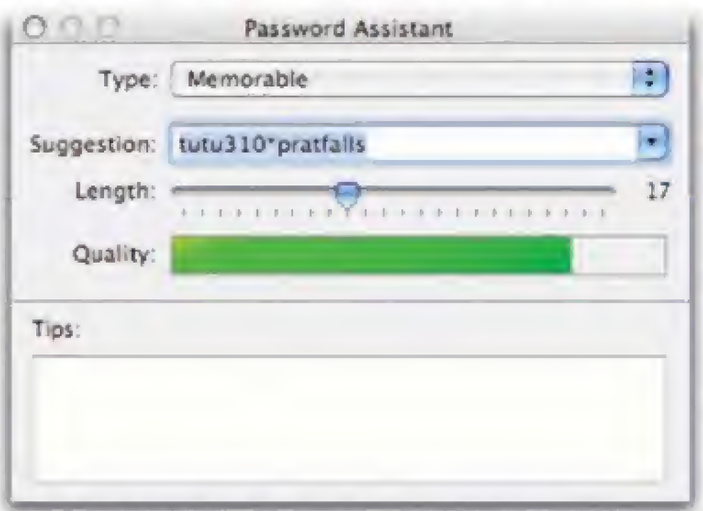
You can solve such problems with a third-party password utility. My favorite is Agile Web Solutions' $30 1Passwd (1passwd.com), which uses Apple's Keychain for storage, but provides plug-ins for most popular browsers (like Safari, Firefox, the Omni Group's OmniWeb, and Mozilla's Camino). Once you enter a Web password, the application remembers it for every supported browser. It also adds a menu to each browser's toolbar (see "Manage Browser Passwords"). This includes commands for generating new passwords, as well as options that let you choose from multiple user name and password sets for a single site. If your browser's autofill isn't working for you, 1Passwd is definitely worth a shot. (For more on 1Passwd, see "Software Treats," page 46.)

4. Master Password Mind Block

Problem: I entered a Master Password when I set up FileVault, but I've since forgotten it.

Solution: Introduced in OS X 10.3, FileVault provides a way to encrypt your entire user folder. When you first configure FileVault in the Security preference pane, you're prompted to enter a Master Password. This password allows you to access the encrypted files even if you forget your login password (though if you forget both passwords, there's no way to recover the files).

In order to change your Master Password in the Security preference pane, you must enter the original password. So if you've forgotten it, you'll have to delete the FileVault keychain. First, if FileVault is currently on, disable it (go to the Security preference pane and click on Turn Off FileVault). Locate the two files in /Library/Keychains (the root-level Library folder, not the one in your user folder) that begin with the words *FileVaultMaster*, and drag them to the Trash. (You'll have to enter an administrator password.) Note that if you delete this keychain—and you've forgotten the login password of the FileVault-protected account—you will *not* be able to access encrypted files by setting up a new Master Password.



Choose Secure Passwords Apple's Password Assistant makes it easy to choose memorable yet secure passwords.

5. Admin Absentmindedness

Problem: I've forgotten my Mac's administrator password.

Solution: If you can't remember your administrator password—or you don't know it because you've recently purchased or inherited someone else's machine—you'll have to reset it. There are a couple of ways to reset an administrator password:

Ask Another Administrator If your Mac has a second administrator account, open the Accounts preference pane. Click on the lock icon at the bottom and have that person enter his or her administrator name and password. Select the user with the forgotten password and click on Reset Password to choose a new one.

Use an Installation Disc Insert your OS X installer disc. To restart from it, hold down the C key while you reboot your Mac. Choose a language as requested, and then go to Utilities: Reset Password. Select your main disk and choose your user name from the pop-up menu. Enter and verify a new password, then click on Save. Quit the Reset Password utility, and then quit the installer and click on Restart to boot up from your hard disk.

If you previously set your keychain password to match your administrator password, the keychain probably won't unlock automatically when you log in (since it still uses your old password). So just delete it and create a new one.

CHECK IT OUT

Back to (Virtual) School

How do you integrate technology into classrooms or corporate training programs if you're not a technical wizard? More and more educators are turning to Moodle (www.moodle.org). This free, open-source course-management software makes it easy for teachers to create password-protected Web sites where students can access class information and assignments, take timed quizzes, submit papers, and share knowledge in chats and *wikis* (pages where students can add and edit the content themselves). Once an administrator has installed Moodle on a Mac, Windows, or Linux server, teachers can log in using a Web browser and select from a wide range of options for designing lessons and assignments—no HTML or programming skills required. If you don't want to administer a site yourself, several companies offer Moodle hosting and support for a fee (see macworld.com/2770). At press time, there were 26,000 registered Moodle sites containing more than 1,078,000 courses. You can explore a number of demonstration courses at macworld.com/2771.—SCHOLLE SAWYER MCFARLAND

Launch Keychain Access. To delete a keychain, make sure the keychain list is showing in the upper left corner of the window; if it isn't, click on the Show Keychains button at the bottom. Select the keychain you want to delete and choose File: Delete Keychain *keychain name*. Select File: New Keychain, choose a name, enter a password, and click on Create. In the list, select the keychain you've just created, and choose File: Make Keychain *keychain name* Default. Whenever you store a new password, Mac OS X will automatically add it to your default keychain.

Note that just as you can reset your administrator password, so can anyone else with physical access to your Mac and an installer disc. To minimize your risks, take extra security precautions such as making your keychain password different from your login password and storing sensitive files in an encrypted disk image. See macworld.com/2536 for more details.

6. AirPort No-Go

Problem: I can't remember the passwords for my network or AirPort base station.
Solution: If you use an AirPort base station (or a third-party wireless router), you potentially have two passwords to worry about: the wireless network password, which your computer needs to get online, and the base station password, which protects the base station against modification by unauthorized parties. You don't have to set either password, but it's a good idea to do so.

Most people store their wireless network password in their keychain so OS X can enter it automatically. But if you switch computers or want to grant a friend access to your network, you'll need to know that password. To find it, open Keychain Access and type the first few letters of your network's name into the Search field. Double-click on the match with the word *login* (or your user name) listed in the Keychain column. In the box that appears, select the Show Password option, enter your keychain password, and click on Allow Once or Always Allow to display the password.

If your network's password isn't there, you'll need to select a new one in AirPort Admin Utility (or AirPort Utility, if you have the new 802.11n base station). That, in turn, requires that you either know the base station's password (if it has one) or have it stored in your keychain.

To change the wireless network password on older base stations, open AirPort Admin Utility (/Applications/Utilities) and double-click on the base station's name. In the AirPort tab, click on Change Wireless Security. Type a new password and click on OK and then on Update. For 802.11n AirPort Extreme Base Stations, open AirPort Utility, select the base station's name, and choose Base Station: Manual Setup. Click on the AirPort icon, and then select the Wireless tab. Enter and verify a new password, choose an encryption method from the Wireless Security pop-up menu, and click on Update.

What if you've forgotten the base station's password too? Then it's time to reset it. Instructions vary by base station, so go to Apple's AirPort Support page (macworld.com/1291) and do a search for *Reset AirPort* to find your model.

Manage Browser Passwords 1Passwd adds a pop-up menu to most browsers, so you can quickly generate passwords or fill in forms.

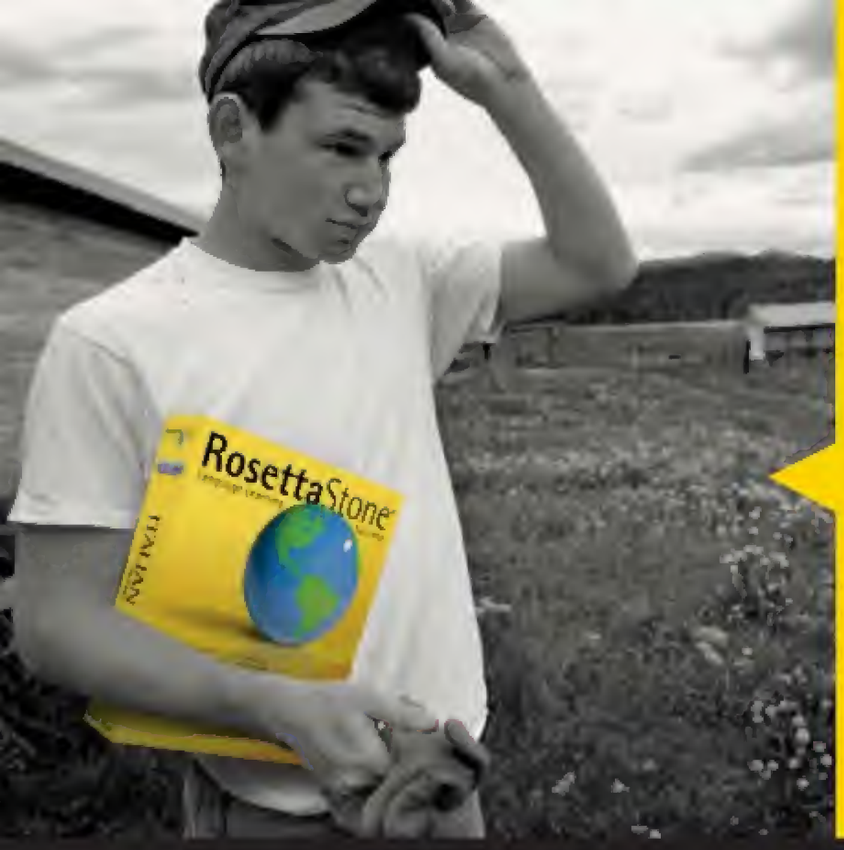
What Makes a Password Secure?

When creating new passwords, most people know they should avoid using their pet's or spouse's name and should include a mix of capital and lowercase letters, numbers, and special characters. But just how long and complex does a password really need to be? Here are some rules of thumb:

Low-Security Passwords If you're creating a password simply to identify yourself, and little is at stake if it's compromised (for example, on a Web site's discussion forum), choose a memorable pattern with eight or nine characters. Include one or more non-alphanumeric characters (for example, *oak7*fid*).

High-Security Passwords If you're protecting bank accounts or personal records, it pays to be safe. Choose a random password or a memorable, word-based one. If you choose a random password, use a mix of 10 or 11 letters (capital and lowercase) and numbers (for instance, *I5oqMqQk8xn*). If you include punctuation, 9 or 10 characters are adequate (such as *@wF?FHbZf*). For memorable passwords, use at least 17 characters, including letters, numbers, and punctuation (as in *acme13-shortbread*).

Joe Kissell is the senior editor of TidBits and the author of the e-book *Take Control of Passwords in Mac OS X* (Take Control Books, 2006).



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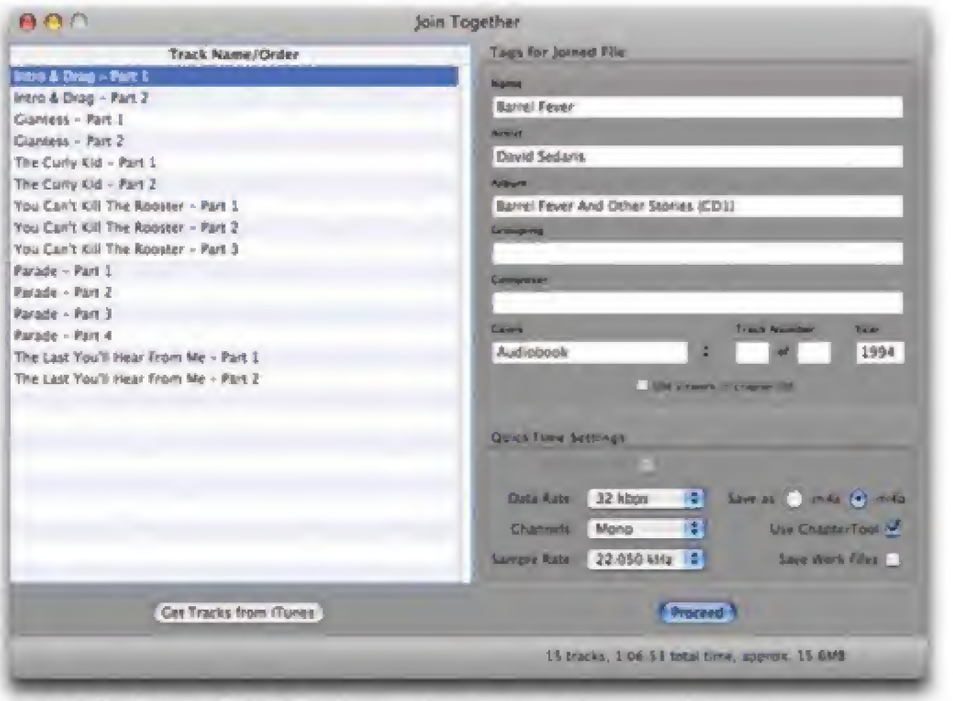
Listening to audiobooks is a terrific way to while away a long commute or airline flight, and audiobooks are pleasant companions when you're hanging out in your backyard, in a park, or on a beach. They're also a great resource for people who, due to physical limitations, find reading books challenging.

Purchase an audiobook from the iTunes Store, and you're in business. But if you get an audiobook from another source, you'll frequently find only emptiness beneath the iPod's Audiobooks entry. This is often because of some confusion surrounding audiobooks and their relationship with the iPod. For example, Audible.com sells audiobooks in a variety of formats—which one is right for your iPod? And how do you get audiobooks you rip from your own audio CDs to appear under the iPod's Audiobooks heading? We'll clear up the confusion by showing you the ins and outs of audiobooks and the iPod.



Convert Audiobooks for the iPod Doug Adams's Join Together can easily join audiobook tracks and convert them for iPod use.

Play Purchased Audiobooks

The iTunes Store sells audiobooks in only one format—as protected AAC files, encoded in mono at a bit rate of 32 Kbps and a sample rate of 24kHz. This results in much lower fidelity than the iTunes Store's music files have; Apple uses these settings because they create smaller—but still perfectly listenable—files.

Audible sells audiobooks in three formats that are compatible with iTunes, iPods, and Apple TVs—formats 2, 3, and 4. All three formats are protected by Audible's digital rights management. In order to load these files into iTunes, you must authorize them with your Audible ID. To do so, double-click on a file and enter your Audible user name and password when iTunes prompts you. Audible lets you authorize up to three computers for audiobook playback.

Create iPod-Compatible Audiobooks

When you move audiobooks purchased from Audible and the iTunes Store to your iPod, they appear under the Audiobooks heading. But if you've ripped an audiobook from a CD or downloaded it from elsewhere, the program has no way of knowing that it's an audiobook—therefore, the program treats it like a regular audio track and files it under Music in iTunes and on the iPod. But you can change that. The first step involves ripping files from a CD.

Rip Your CDs There are a couple of ways to approach this. One way is to rip all the separate tracks on the CD as a single long track. To do so, launch iTunes, insert your audiobook CD, select all the tracks on it, and, from the Advanced menu, choose Join CD Tracks. This ensures that iTunes treats all the selected content on the CD as one track rather than a series of short tracks, which can be hard to manage. Repeat for any other CDs in the audiobook set.

The disadvantage of ripping separate tracks together is that you lose the ability to move between chapters (each file on the CD represents an audiobook chapter). If you want to navigate to separate chapters with your Click Wheel

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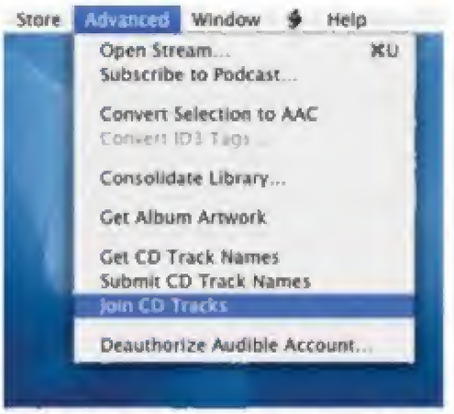
iPod, you're better off ripping individual files and joining them afterward. To do so, simply insert the CD and click on Yes when a dialog box asks whether you'd like to import the CD into your iTunes library. (If you don't see this option, select the CD in iTunes' Source list and click on the Import CD button at the bottom of the iTunes window.)

Convert Your Files Now that you have these files in iTunes, you need to convert them so they'll appear in the iPod's Audiobooks menu. While you can do this by hand—converting the files to AAC and then changing their file extensions from *.m4a* to *.m4b*—there are easier options.

The first is a combination of Doug Adams's AppleScript Studio application Join Together 5.1.2 (payment requested; macworld.com/2778) and Apple's free Chapter Tool (macworld.com/2779). Start by dragging the ChapterTool folder to your user folder's Music folder. After ripping the files from the CD in iTunes (which is more reliable than using Join Together to do so), select them in iTunes and launch Join Together. You should then see your files in Join Together's window. In the QuickTime Settings area, choose 32 kbps from the Data Rate pop-up menu, Mono from the Channels pop-up menu, and 22.050 kHz from the Sample Rate pop-up menu. If you'd rather not reencode your audio files—because you really can't stand low-quality audio, for example, or your files are already encoded at a lower quality—and you just want them to appear in your iPod's Audiobooks menu, select the Pass Through option.

PHOTOGRAPH COURTESY OF APPLE



Join Tracks iTunes' Join CD Tracks command lets you rip selected CD tracks as one long file.

This works as long as all the files have the same bit rate.

You'll also need to enable the .m4b Save As option. And if you want to maintain the ability to jump from one section of the book to another—to skip the opening prologue or dash to the end to find out whodunit, for example—enable the Use ChapterTool option. iTunes 7 will display a new Chapters menu when you play such a file, and the iPod will recognize its chapters as well.

Click on Proceed, and Join Together will join the files, convert them to a format compatible with the iPod's Audiobooks settings, add chapter markers, and move the completed file to your iTunes library (where it will appear under Audiobooks in the Source list). Like downloaded audiobooks, your files will be of a lower audio quality than the music files in your iTunes library. That's OK, for two reasons: Audiobook files can take up a load of memory unless you use space-saving encoder settings. And you don't need pristine audio quality for speech, as opposed to music, where you can really hear the difference.

Easier Conversion If even taking two steps—ripping your audiobook CDs and then encoding them for iPod compatibility—seems like too much work, Splasm Software's Audiobook Builder ($10; www.splasm.com) is a worthwhile utility for constructing audiobooks from beginning to end. It can easily convert a series of audiobook files into a long file (complete with chapter markers), convert that file to an iPod audiobook format, and even add artwork to your audiobook and its chapters.

Navigation and Playback

There's an Audiobooks entry on every iPod that has a display, and all those models support bookmarking—meaning that when you return to an audiobook, it will start where you left off. But only Click Wheel iPods support a couple of special audiobook features. First, on these iPods, you can change playback speed. Second, only these models recognize chapters embedded in audiobook files and allow you to skip ahead or back a chapter with the iPod's controls.

To play an audiobook at a faster or slower speed—for those times when you want to zip through a less interesting section or slow down to glean more information—go to the Audiobooks section in the iPod's Settings menu. There you'll see Slower, Normal, and Faster commands. If you choose Slower, your iPod will play the material more slowly while maintaining its original pitch. Faster also maintains the pitch but plays the material more quickly.

To navigate through chapters while the audiobook is playing, simply press the forward button to skip forward a chapter or the back button to move back a chapter.

The iPod shuffle features neither a display nor a true Click Wheel, so where does it fit in? To begin with, iTunes doesn't automatically copy audiobooks to an iPod shuffle, even if they belong to a playlist you've designated for syncing. Instead, you must manually drag them in iTunes to the shuffle icon in the Source list. Also, while the iPod shuffle supports bookmarks, it doesn't support chapters. Press the forward button, and you'll move to the next file rather than the next chapter. So if you want to navigate through chapters on an iPod shuffle, don't join the original CD tracks—keep them as separate files. Finally, when you're playing an audiobook on a shuffle, be sure to switch the shuffle to the play-in-order mode, rather than the shuffle mode, so the audiobook plays in the proper order.

Senior Editor **Christopher Breen** is the author of *The iPod and iTunes Pocket Guide*, second edition (Peachpit Press, 2007).

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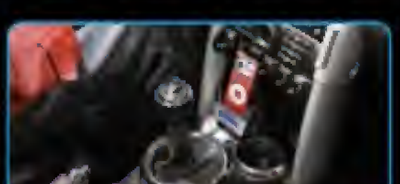

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Steady Your Shot

Combat blurry photos with image-stabilization technology

BY DERRICK STORY

Even if you think you have rock-steady hands, it's easy to end up with blurry photos—particularly in low-light indoor environments where you don't want to use a flash (in a church or a museum, for example). In these situations, the shutter has to stay open longer in order to create a good exposure. And the longer it stays open, the more susceptible your image is to the effects of camera shake or subject movement.

To help battle these problems, many camera manufacturers now offer cameras and lenses that include image-stabilization technology. But there are different approaches to image stabilization, each with unique advantages and disadvantages. I'll help you cut through the jargon and figure out which type works best for your style of shooting.

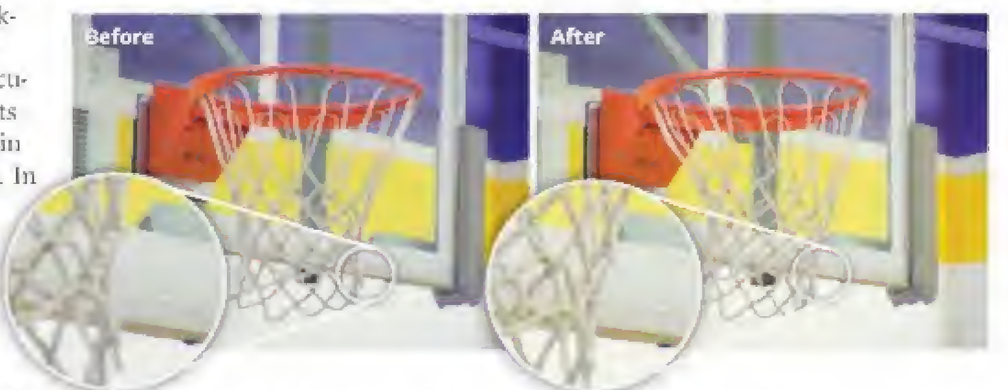

Image Stabilization at Work These shots were taken with Panasonic's Lumix DMC-FZ8 compact camera, using a fully extended 12× optical zoom. The first photo shows the softening effects of camera shake. The second, captured with optical image stabilization turned on, is much sharper.

Stabilization Styles

Here's a closer look at the stabilization options you'll probably find at the camera counter.

Optical Stabilization Used in compact cameras and SLRs, optical stabilization is the most common image-stabilization method. Different manufacturers have different names for it: Nikon calls its optical stabilization Optical Vibration Reduction when referring to cameras, and VR when referring to lenses. Canon calls its optical stabilizer the Image Stabilizer (IS); Panasonic, the Mega O.I.S.; and Sigma, the Optical Stabilizer (OS) system.

Optical stabilization uses gyroscopes within the camera or the camera's lens to detect camera shake, and then steadies the path of the image as it makes its way to the camera's sensor (CCD). Canon, one of the first companies to develop this technology, employs a floating lens element that moves in the opposite direction of the shake. For instance, if you suddenly move the camera upward while snapping your shot, the floating lens element moves the other way, thus stabilizing the image as it heads toward the sensor. In SLRs, the gyroscopes are often located in the lens; in point-and-shoots, they are positioned in the body (since there is no room in the lens on these tiny shooters).

Sensor Stabilization This technology works similarly to optical stabilization: with sensor stabilization, gyroscopes located in the camera body detect shake and then move the image sensor to counteract the motion. Although it's available on some point-and-shoots, sensor stabilization is more commonly used in SLRs. Olympus refers to this technology as Sensor-Shift Image Stabilization; Pentax, Shake Reduction; and Sony, Super SteadyShot.

Digital Stabilization Unlike optical and sensor stabilization, which actually correct the image while you're capturing a picture, digital stabilization attempts to make a picture clearer by changing the camera's settings or by attempting to alter the image after it has been captured. There are several different approaches to digital stabilization. One of the most useful is Intelligent ISO. Used primarily in compact cameras, an Intelligent ISO feature automatically increases the ISO, or light-sensitivity, setting when the image sensor detects a moving object. As a result, the camera is able to use a faster shutter speed to snap a picture, thus freezing the motion of the subject and reducing blur. When the subject stops moving, the camera automatically returns to a lower ISO setting. This last part is important because higher ISO settings also tend to produce more image noise. Panasonic includes an Intelligent ISO control in many of its cameras, while Fuji employs a similar approach called Picture Stabilization.

Weighing the Options

When it comes to counteracting camera shake, optical stabilization and sensor stabilization are the two best options, since neither degrades the image in any way. (However, neither will help with blurriness caused by a subject's movement). The advantage of optical stabilization is that it lets you preview an image in the viewfinder or on the LCD—so it's the better choice for pho-

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tographers who want to see the effects of stabilization before snapping a shot.

If you're buying an SLR, there are a few more things to consider. First off, because optical stabilization takes place within the lens, you'll have to buy a collection of image-stabilization lenses, which often cost more than their non-stabilized counterparts. With sensor stabilization, you don't need to invest in any specialized lenses, since the camera is doing the stabilizing. However, sensor stabilization does become less effective when you use telephoto lenses longer than 300mm. If you do a lot of close-up photography, you'll get better results with optical stabilization.

In general, digital stabilization is a less effective approach than optical or sensor stabilization. Digitally stabilized pictures tend to look less sharp and have more noise. Of the digital-stabilization options, Intelligent ISO is a good choice because it minimizes motion blur caused by moving subjects, such as two-year-old children. This is something optical and sensor stabilization can't do.

If you're shopping for a new camera, spend a little more money to get optical or sensor stabilization. Even better, look for a camera that offers a combination of approaches—optical or sensor stabilization to combat camera shake, and Intelligent ISO for moving subjects.

If you're a sports photographer who likes to do a lot of panning (a technique in which you follow a moving subject with the camera during an exposure), you should look for a camera or lens that offers stabilization on a single axis. Generally speaking, image stabilizers operate on two axes, meaning that they work whether you're moving the camera vertically or horizontally. But some cameras also provide single-axis image stabilization, which stabilizes only vertical movement as you pan.

5 Tips for Image Stabilizers

If you're going to invest in a camera with image stabilization, you'll want to get the most from it. Here are some dos and don'ts.

1 Conserve Batteries Turn off image stabilizers when your battery is low. Stabilizers use additional juice that you might want to save for those last few precious sightseeing shots.

2 Watch Tripods Check the manual to see whether you have to turn off the stabilizer when mounting your camera on a tripod (which you still might use when you want to jump into the picture, for instance). Older cameras require this, but many newer models automatically detect tripod mounting and compensate accordingly.

3 Remember Close-Ups Stabilization is usually more important at higher magnifications. If you use long telephoto lenses (200mm or more) or shoot in macro mode, make sure image stabilization is turned on.

4 Know Your Stabilizer Check your manual to learn about the different stabilization modes. For example, Panasonic's $350 Lumix DMC-FZ8 (www.panasonic.com) has two modes. In Continuous, the camera keeps the stabilizer activated and displays the results on the LCD in real time. Shoot Only mode applies stabilization just when you press the shutter button. This consumes less battery power but doesn't let you preview the results of stabilization.

5 Play Around Most companies provide specifications for the stabilizer's range of effectiveness (usually measured in f-stops), but you shouldn't rely solely on them. Some lenses with optical stabilization have a range rated as high as four f-stops, but your personal shooting technique may result in a smaller range. So test your equipment before important shoots, and find out what works for you.

Keeping Steady without Stabilization

If you're not ready to give up your current camera and invest in one with stabilization technology, there are still a few ways to reduce camera shake.

Use a Tripod Your trusty tripod may be low-tech, but it's a reliable image stabilizer. For best results, use your camera's self-timer or a remote release to trip the shutter. Even if your camera is mounted on a tripod, you can still jar it when you press the shutter button.

Firm Your Grip If you don't have a tripod handy, place the camera on a steady surface or use a firm hold to improve sharpness. Lock your elbows against your body or lean against a solid surface, and then gently squeeze the shutter button just after you finish exhaling (that's when you're at your steadiest).

Adjust ISO Try increasing your camera's ISO setting from 100 to 400. This enables faster shutter speeds and should reduce blur. You'll end up with more image noise, though, especially with cameras that have smaller sensors (such as compact point-and-shoots), so be sure to change your ISO setting back when you return to bright light.

Night Shooting Image stabilization allows you to take photos after the sun sets at shutter speeds as low as 1/8 of a second.

Derrick Story is the digital media evangelist for O'Reilly Media (digitalmedia.oreilly.com). He also runs a virtual camera club (www.thedigitalstory.com) featuring weekly podcasts and pro tips.

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3 Geek Tools

Power up your desktop, write to NTFS volumes, and selectively reinstall software.

Sometimes Mac OS X has everything you need. But sometimes it doesn't. Occasionally you need to do some kind of system work that your operating system just doesn't support. In those cases, you need to turn to specialized tools like one of the three programs here.

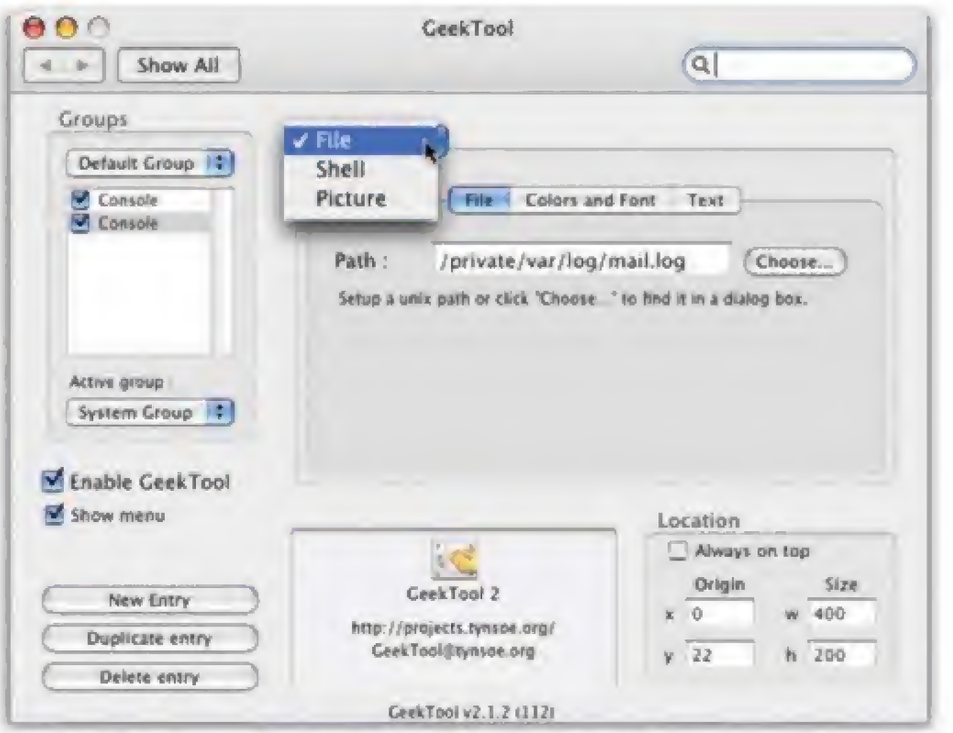
GeekTool

The open-source GeekTool (free; projects.tynsoe.org/en/geektool/) turns your OS X desktop into more than just a holding pen for folders and files. It embeds shell-command output, text files, and images on the desktop, giving you instant access to all kinds of information without a lot of eye candy.

After you download and install GeekTool, it appears in System Preferences. You use its preference pane to add and configure items you want to appear on the desktop. To add a new item, you just click on the New Entry button. From a drop-down menu, you then choose File (for text files), Shell (to display the output of Unix commands), or Picture (for images).

For example, to keep an eye on what's going on inside your Mac, you could choose File from the drop-down menu, and then set the path to `/private/var/log/system.log`. As events occur on your Mac, the system log will update live on your desktop.

Anything you can do from the Terminal command line, you can do with a GeekTool Shell entry. To see how long your Mac's been up and running, for example, select Shell, and then type `uptime` in the Command field. You can also use piping, as in `ifconfig en0 | grep netmask` (which displays your Mac's current IP address). To monitor the CPU and memory usage of active processes, combine the shell's top and tail commands: `top -FR -o cpu -n 20 -l 2 | tail -21`.



GeekTool Using GeekTool's preference pane, you can specify which files, shell-command output, or images you want to appear directly on your OS X desktop.

Finally, if you want to embed local or Web-based images on your desktop, you simply choose the Picture option, and then supply a URL.

No matter which of those three options you choose, you can specify a location on screen (using *x*-*y* coordinates), a size in pixels, and text formatting. When you're specifying a color for text or shell output, remember to take your desktop background into account: if your desktop is dark, choose a lighter color for the output (and vice versa).

To keep GeekTool entries from hogging unnecessary system resources, try to be as conservative as possible with each entry's refresh rate. By default, shell commands refresh every 10 seconds. If you need to run your script only once an hour, set Refresh to `3600` instead. Your daily Web graph should update only once a day (or every 86,400 seconds).

For more information on this and other features, see the documentation at macworld.com/2845.—**GINA TRAPANI**

MacFUSE

By default, OS X formats drives with HFS+ (Hierarchical File System Plus), aka Mac OS Extended; OS X can also format drives using the MS-DOS File System (FAT), or the Unix File System. MacFUSE (free; macfuse.googlecode.com) is an open-source project that makes it easier to add support for new file systems to your Mac.

Why would you want to do that? One of the biggest reasons is that while you can read Windows NTFS volumes in OS X, you can't write to them. Or you may want to do something more obscure, such as treat an FTP server as just another volume in the Finder, or use your Gmail account to store files and e-mail messages. Whatever the reason for using an alternative file system in OS X, MacFUSE will let you do it.

MacFUSE is based on an open-source project called FUSE (short for Filesystem in Userspace), which lets you work with all sorts of file systems, no matter which ones your operating system supports natively. Because FUSE has been available for a while in Unix, programmers have created a bunch of file systems for it; now Mac folks can use them.

Installing MacFUSE is simple: You download a disk image from macworld.com/2846 and run the installer package. You then need to install one of the file systems that MacFUSE supports. If, for example, your goal is to get full access to a Windows NTFS volume, download the NTFS-3G package from macworld.com/2847. That's it. Your Mac should now be ready to mount, read from, and write to NTFS volumes.

(Although NTFS-3G is getting the most buzz, there are many more FUSE-compatible file systems you can try. Check out the full roster at macworld.com/2848. Note that not all of these other systems will work in OS X.)

One warning: While most users report that MacFUSE and NTFS-3G are quite stable, we're talking about a file system here, so use caution: Try out the software before you rely on it for anything critical.

If you need help, the MacFUSE project site (code.google.com/p/macfuse/) has installers, source code, and news updates. (Note that I'm listed there as a team member. In reality, that simply means that I've uploaded some documents to the site.) For information specifically about NTFS-3G, including downloads, background information, and a handy FAQ, see macworld.com/2850.—**SCOTT KNASTER**

Pacifist

Occasionally, something may go wrong with your system that requires you to reinstall a missing or corrupted system file. Or you may have a specific program component that just won't launch and you need to get a fresh copy of it. Whether you're replacing specific files from the Mac OS X installer or a single file from an application installer, Charlesoft's $20 Pacifist (★★★★½; macworld.com/2851) can do the trick.

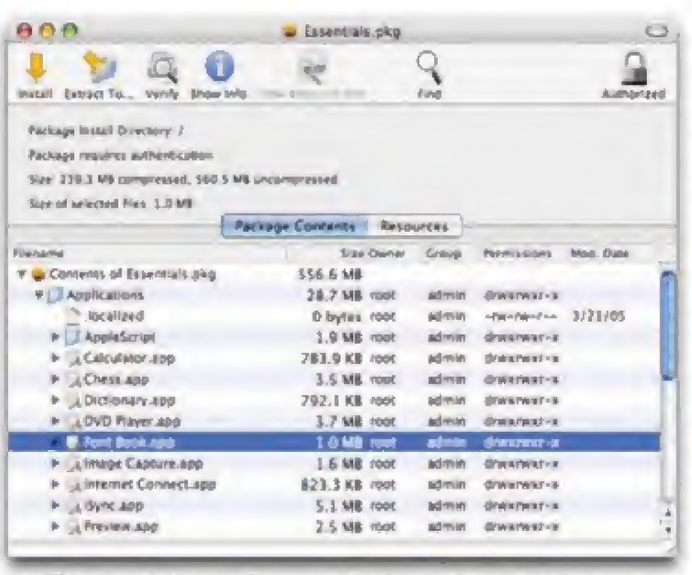
To use Pacifist, you drag an installation package (a .pkg or .mpkg file) or a disk image into its window. The program then displays a list of all its files and their default installation destinations. Unlike Apple's Installer, Pacifist allows you to select individual files to install. It can also install system files on a bootable volume that is not the current startup volume.

Pacifist's Find function makes finding specific files or programs easy, even in large packages. For example, if you need to replace a corrupted font that was installed as part of OS X, load your OS X installation disc, go to /System/Installation/Packages on that disc, and drag OSInstall.mpkg into the Pacifist window. Click on the Find button and type the font's name, and the results will display in a drawer. Click on one of those results, and the list in the Pacifist window expands to show that item. You can then install or extract the item you need.

If you have doubts about whether you've installed a particular program correctly, open its installation package, or its receipt (a record of the installation, located in /Library/Receipts), and click on Verify in Pacifist's toolbar. Pacifist can check the installation, as well as file permissions and file contents; the latter option verifies the checksums of the files against those listed in the receipt to determine whether they have changed in any way. Pacifist then lists any missing files, changed permissions, or changed files. (Changed files are not necessarily a problem: Software Update or a program's updater may simply have updated them.)

Finally, Pacifist has a useful Display Kernel Extension Report command; when you run this, Pacifist displays a list of all kernel extensions installed on your Mac. This report tells you the kernel extensions' names, bundle IDs, and receipts (indicating which package installed them), and also whether Apple or a third party provided them. You can use this information to quickly spot any kernel extensions that might be causing system problems.

Pacifist is powerful, and as such it can be dangerous. If you use it to install an older version of a program that you've since updated, you might render your system unstable, especially if you install elements of OS X. But savvy users will realize that, in spite of these risks, Pacifist is an irreplaceable software-maintenance and -troubleshooting tool.—**KIRK McELHEARN**



Pacifist From within Pacifist, you can look inside installer packages and pick which specific components you want to reinstall.

Scott Knaster is a technical writer at Google. **Kirk McElhearn** writes about more than just Macs on his Web site, Kirkville (www.mcelhearn.com). **Gina Trapani** is the author of *Lifehacker: 88 Tech Tricks to Turbocharge Your Day* (Wiley, 2006) and the founding editor of Lifehacker.com.

Help Desk

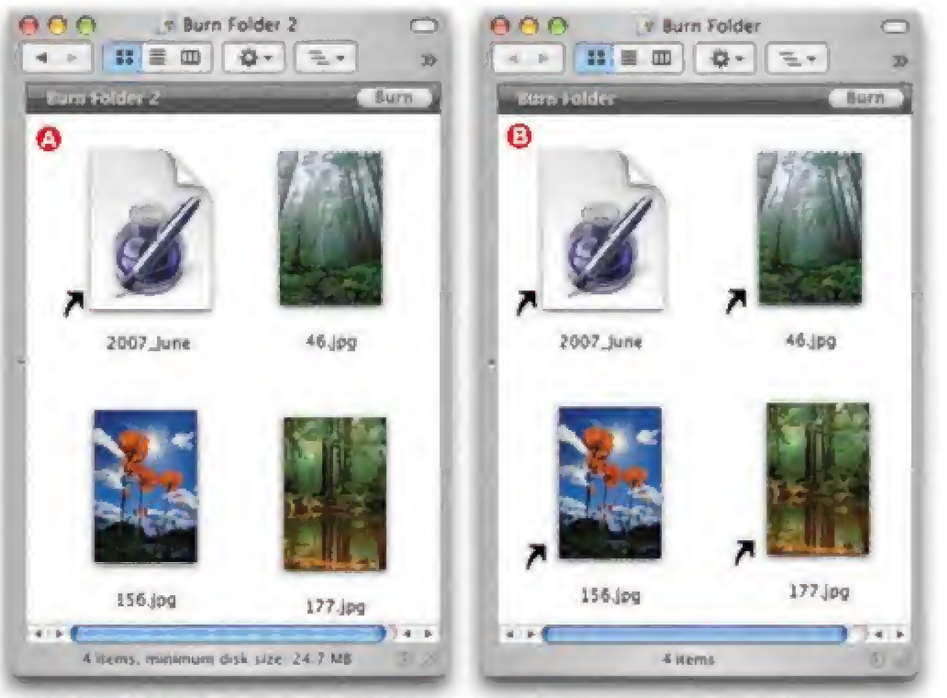
Mac OS X Hints

The insiders' tips you won't get from Apple **BY ROB GRIFFITHS**

Speed Up iPhoto Image Burning

It's easy to select an album or a bunch of photos in Apple's iPhoto and then click on Burn to create a disc of images. But what if you want to combine iPhoto images with other files, such as Word documents and movies? The obvious solution is to use the Finder's Burn Folder feature. In the Finder, select File: New Burn Folder, and drag the images you'd like to burn from iPhoto into the folder. Then drag in the other files you want to include. Insert a blank CD or DVD into your drive and click on Burn; then you're done.

There's only one small problem. When you drag items from most Finder windows into a burn folder, the Finder creates an alias of the original file. But when you drag an image from iPhoto, the Finder actually copies it. Copying (and later deleting) these potentially big files takes extra time. So instead, after you start dragging the images from iPhoto, press and hold the ⌘ and option keys. Keep holding them down until you drop the images into the burn folder, and the Finder will create aliases of the originals. (You can tell that a file is an alias by its icon, which will have a small arrow in the lower left corner; see "Faster Burn Folders.")



Faster Burn Folders Typically, the Finder makes copies of any images you drag out of iPhoto and into a burn folder (A). If you want to speed things up and save hard-drive space, press and hold ⌘-option as you drag the images to the folder. The Finder will quickly create aliases of the originals instead (B).

Borrow a Drive from Another Mac

Say you want to install a program on the old Mac the kids use, but the program is on a DVD while that Mac has only a CD drive. Or say you absolutely must install a program from a CD, but your computer's optical drive has given up the ghost. You might be able to work around these obstacles if you have another Mac in the house.

FireWire Target Disk mode lets you boot one Mac in Target Disk mode (by holding down the T key while starting up), and then connect it to another with a FireWire cable. The Mac booted in Target Disk mode will appear as a FireWire hard drive to the other Mac. This is a great way to transfer lots of data between two Macs, because FireWire connections are superfast. (Not all Macs can be put into Target Disk mode; see macworld.com/2815 for a list.) But there's an added bonus with most recent Macs: you can access not only the target Mac's hard drive but also its optical drive.

You need additional software, such as Roxio's $100 Toast 8 (★★★★½; macworld.com/2816) to use this drive for burning. I also wasn't able to use the drive to watch a DVD movie. But you can install

Have a hint to share?

Go to MacOSXHints.com to submit it. This column was based on tips from John Burwell, Jimmy Lundgren, Jakob Peterhänsel, Brent Thompson, and anonymous contributors. Each month, the author of our favorite tip receives the *Help Desk* mug.

MUG PHOTOGRAPH BY PETER BELANGER; ICON BY PAUL HOWALT; KEYBOARD PHOTOGRAPH BY EDOUARD KOLLY

that urgently needed software package or grab some files off a backup disc.

Navigating iTunes' Cover Flow

iTunes' Cover Flow view (View: Cover Flow View), introduced in version 7, gives you a new way to look through your music library—by album cover. Just drag the scroll bar to the left or right to flip through the album art for your music. But there are also two less obvious ways to peruse your collection.

If you've got a large library and are looking for something specific, first make sure that iTunes' browsing pane is active by clicking on any song in the library or in a playlist. Once you've done that, type a few letters, and Cover Flow will jump to a matching CD in your collection (see "Cover Flow Browsing"). The sort order of the library or the playlist determines the match. For example, if I click on my Album column and then type **no c**, Cover Flow jumps to *No Code*, by Pearl Jam. If I sort by artist, those same characters take me to the first album I have by No Doubt (albums are sorted alphabetically). And if I sort by song name and type the same thing, I jump to the album *Faded Seaside Glamour*, by Delays—because that album contains a song titled "No Ending."

Alternatively, if you like to flip randomly through your albums when you're looking for something to listen to, give your scroll wheel a spin and watch the covers go flying by. If you use a third-party mouse, you might have to use its configuration software to slow down your scroll rate. If you're using a laptop that supports two-finger scrolling, just drag your fingers across (or down—it doesn't matter which) your trackpad.

Cover Flow Browsing Use your keyboard to quickly jump to a specific album in Cover Flow view. If I type *dark*, for instance, I jump to a classic Springsteen album. Your sort order determines the match iTunes makes.

OS X 101

Make Your Own Shortcuts

You know you waste time whenever you reach for the mouse to activate commonly used commands. But what if the command's keyboard shortcut is awkward, or there isn't one for something you do a lot? Try the Keyboard & Mouse preference pane.

Change a Shortcut It's easy to reassign a shortcut if it's listed in the Keyboard & Mouse preference pane's Keyboard Shortcuts tab. Just double-click on the existing shortcut and then press the combination you'd rather use. For instance, if you think that ⌘-shift-control-3 (which copies a picture of your screen to the Clipboard) requires too much finger gymnastics, simply double-click on the entry and try a simpler replacement.

You can use the Keyboard Shortcuts tab to change not only program-specific but also systemwide shortcuts. This can be helpful if a standard shortcut is hard for you to remember, or when a shortcut in one program has a completely different function in another. For example, consider ⌘-L. If you're in Apple's Safari (and most other browsers), that shortcut places your cursor in the address bar, so you can start typing the URL of a Web site. But in iChat, ⌘-L is the shortcut for logging out—and immediately ending all your current conversations.

To prevent that, you can assign a new shortcut to logging out of iChat. First quit iChat, and then switch to the Keyboard Shortcuts tab of the Keyboard & Mouse preference pane. Click on the plus sign (+) at the lower left corner of the window, and a small shortcut-definition window will appear. Click on the Application drop-down menu and select iChat from the list. In the Menu Title field, type **Log Out of AIM**. Note that you must *exactly* match the name of the menu item, including any capitalization. Put your cursor in the Keyboard Shortcut box, and press the new shortcut you'd like iChat to use—perhaps ⌘-shift-L, which is still easy to remember but hard to type accidentally. Click on Add, and the next time you launch iChat, look under the iChat menu. You should see your new ⌘-shift-L shortcut.

Create a New Shortcut The Keyboard Shortcuts pane is also useful when you want to create shortcuts for commands that don't have them—even a systemwide command such as Sleep. To make a Sleep shortcut, click on the plus sign in the Keyboard Shortcuts tab and set the Applications pop-up menu to All Applications. Type **Sleep** (again, capitalization counts) in the Menu Title field, and then go to the Keyboard Shortcut box and press the shortcut you want to use. I use ⌘-control-O. Click on Add.

You will need to restart all programs that were running when you created the shortcut, including the Finder, before they can see the shortcut. If you don't have much open, you can just log out and back in (Apple menu: Log Out *user name*). If you have a lot of programs open, it's quicker to open Activity Monitor (/Applications/Utilities/), select the Finder and all programs in the list of processes, and then click on the Quit Process button in the toolbar.

Remote Control Options Save yourself some mouse clicks when using Remote Desktop. Press and hold the option key while clicking on a user's On box to enable all privileges for that user.

Quickly Set Up Remote Desktop

Apple's $299 Remote Desktop 3 desktop-management package (★★★½; macworld.com/1452) requires a lot of clicking to set up each user on a machine. First you go to the Sharing preference pane, click on Apple Remote Desktop, and click on Access Privileges. Then you have to select the On option next to each user you want to authorize, and decide which of the ten optional capabilities you'd like that user to have. Each capability has its own check box (see "Remote Control Options"). So if you're setting up five machines with six users on each machine, you're looking at 300 mouse clicks to grant everyone all privileges!

So here's the time-saver: hold down the option key before clicking on the On check box next to a user's name. When you do, all ten of that user's capabilities will be automatically activated. Repeat the process, and you'll disable all ten capabilities, as well as remove that user's access. This is a much faster way to enable all privileges for users (or even most privileges—just deselect the privileges you don't want to grant).

Use Preview to Create Image Files

By default, Apple's Preview opens most of the PDFs and images you come upon. But that's not all Preview can do—it can actually create images, at least in one very specific situation: when you have an image on the Clipboard. After you've copied a graphic, open Preview and press ⌘-N. Preview automatically creates a file from the contents of the Clipboard. Use File: Save to save the image in the format and location of your choosing.

This can be handy, for example, if you use Apple's Keynote and want to create an image from a slide. Press ⌘-C with the slide highlighted in the navigator, switch to Preview, and press ⌘-N. Ta-da!—the slide is now an image. Also, if you ever grab a portion of a screen and send it to the Clipboard (using the shortcut ⌘-shift-control-4), and then decide you'd rather have the image be a file of its own, just switch to Preview and press ⌘-N—there's no need to grab the screenshot again.

Senior Editor **Rob Griffiths** runs the MacOSXHints.com Web site.

POWER TIP OF THE MONTH

Use ⌘-F to Search iTunes

One of the things I love about OS X is its consistency. Consider File: Open (⌘-O), Edit: Copy (⌘-C), and File: Print (⌘-P). It doesn't matter which application you're using, you know exactly what those menu commands and shortcut keys will do. The same goes for the shortcut ⌘-F—it always activates Find or Search. At least, it does in Apple's Safari, TextEdit, and iPhoto, as well as in probably 200 other programs I could name.

Try it in iTunes, though, as I used to do by force of habit, and you get the full-screen iTunes interface. That's quite a surprise when you're expecting to see the cursor jump to the Search box. You might think that I could simply reassign the shortcut, using the handy Keyboard Shortcuts tab of the Keyboard & Mouse pane in System Preferences (see "Make Your Own Shortcuts"). Unfortunately, if you go to enter the name of the Search menu command, you'll find that there isn't one! But never fear: you can use Terminal (/Applications/Utilities/) to reassign this shortcut.

The first step is to change iTunes' View: Full Screen shortcut from ⌘-F to something else. Quit iTunes and open the Keyboard & Mouse preference pane. Select the Keyboard Shortcuts tab, and click on the plus sign (+) to add a new shortcut. Set the Application pop-up menu to iTunes, type `Full Screen` in the Menu Title field, and then put your cursor in the Keyboard Shortcut box and press a new key combination—⌘-shift-F, perhaps. Click on Add, and you're done—you can now use ⌘-shift-F to access iTunes' Full Screen mode.

Now launch Terminal (make sure iTunes isn't running) and copy and paste this command from macworld.com/2817:

```
defaults write com.apple.iTunes \
NSUserKeyEquivalents -dict-add "Target Search Field" "@F"
```

Press return. That's it; you're done. Open iTunes and press ⌘-F—the cursor will jump to the Search box.

If you ever decide you'd like the old behavior back, you don't need Terminal at all. Just quit iTunes, go back to the Keyboard Shortcuts tab of the Keyboard & Mouse preference pane, and use the minus-sign button (–) to delete the entry for iTunes' Full Screen menu. The next time you launch iTunes, ⌘-F will invoke Full Screen mode again.

WHAT'S ONLINE

Automatically Restart a Crashed Program Have a critical background program you want to restart automatically after a crash? Here's how (macworld.com/2818).

Create a Textured Desktop Use Google SketchUp to re-create the textured desktop patterns of yesteryear (macworld.com/2819).

Add Audio and Sound Folders to iMovie Learn how to add custom folders to—and remove them from—iMovie 6's Media tab (macworld.com/2820).

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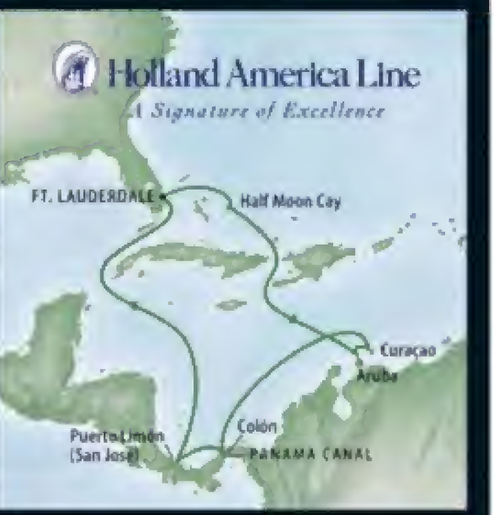

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Mac 911

Solutions to your most vexing Mac problems **BY CHRISTOPHER BREEN**

The Not-in-a-Playlist Playlist

Q: I often receive MP3s that are copied to iTunes' library when I open them. As time goes by, the library gets filled with stuff I don't want. The stuff I do want is already sorted into playlists. Can I make a smart playlist with songs that are *not* in any playlist?

Bruno Grieco

A: Sure. But before I offer a couple of smart-playlist techniques, allow me to refer you to the always helpful Doug's AppleScripts for iTunes site, where you'll find the free Not In Any Playlist To Playlist 1.0 script (macworld.com/2808). This AppleScript will do just what its name promises—locate tracks that aren't in a playlist and place those tracks in their own playlist. Once they're there, you can select them all, hold down the option key, and press delete. A warning message will ask you whether you'd really like to delete the tracks from your iTunes library. You do, so click on OK. Note that if you have a lot of tracks, the script can take a long time to do its job.

If you'd rather create your own version of this unwanted-songs playlist, there are a couple of ways to do so. The first is to create a smart playlist (File: New Smart Playlist) that includes multiple conditions along the lines of: Playlist Is Not *playlist_name_1*, Playlist Is Not *playlist_name_2*, Playlist Is Not *playlist_name_3*, and so on, with a condition for each playlist you've created in iTunes' Source list. If you have lots of playlists, this will quickly get tiresome.

Not in a Playlist There's an easy way to track down things you haven't bothered to put in a playlist. Put your playlists in a folder, and then create a smart playlist that finds everything that's not in the folder.

The second way is to choose File: New Folder (which creates a new folder in iTunes' Source list), name the folder All My Playlists (for example), and drag all your playlists into this folder. Then you can create a new smart playlist that reads: Playlist Is Not All My Playlists (see "Not in a Playlist"). The resulting smart playlist should contain all the tracks that aren't in the playlists within your All My Playlists folder.

Have a problem?
Go to the Mac 911 forum (macworld.com/2467) for help with your misbehaving Mac or applications.

When Fresh Applications Aren't

Q: When opening applications, I often see an alert message that reads, "You are opening the application *whatever* for the first time. Are you sure you want to open this application?" This happens repeatedly for the same application, day after day. What can I do to eliminate these alerts for programs that I have already opened?

Judd Mosser

A: Your Mac is behaving as if its LaunchServices database—the database that keeps track of which applications have been launched and which haven't—has been mucked with. Given that the guts of LaunchServices are tucked away in places a user wouldn't normally go, a maintenance utility such as Maintain's $15 Cocktail (macworld.com/1214) or Titanium Software's free OnyX (♦♦♦♦; macworld.com/1214) is probably responsible.

As wonderful as these tools can be, they can also cause this kind of unexpected behavior. If you've run such a utility, launch it and check its autopilot settings. My guess is that something is working in the background to keep your LaunchServices database fresh yet frustrating.

The Computer Ate My Icons

Q: My wife left our kids unattended for a few minutes at the computer. Now most of my System Preferences icons are absent. In their place are file-looking icons containing tiny System Preferences icons. All the preferences still work, but I'd like my regular icons back.

James Gibson

A: I wouldn't rush to blame the kids—sometimes these things just happen. Go to *your user folder*/Library/Caches and get rid of com.apple.preferencepanes.cache. In all likelihood, your cache file got corrupted. Deleting it will create a new one that should make your regular icons reappear.

Accidental Universal Access

Q: Lately my iMac has been in a strange state: Every mouse operation evokes a spoken response, as does every attempt to open a control panel or a window. Additionally, there is always a dark rectangle outlining some object in the current window or on the desktop. I looked through various libraries for an obvious .plist file, but could find none. Restarting my Mac has not helped. Ideas?

Clay Ross

A: Allow me to offer this general advice: When your Mac unexpectedly talks back to you, zooms in on objects, activates windows and menus when you press keys on your keyboard, displays an enormous cursor, or shows you a display that looks like an X-ray image, run, don't walk, to the Universal Access preference pane.

This System Preferences pane was designed to help people with physical limitations. You can use it to control the cursor with the keyboard or make your Mac recite the names of buttons and menu items, for example. Many of

ICONS BY PAUL HOWALT

Bugs & Fixes BY TED LANDAU

Less Than Optimal Optimizing When you arrive at the final phase of most Mac OS X update installations—anything from the newest version of iTunes to a security patch—the "Optimizing System Performance" message appears. Beware of a serious bug that can bite at just this moment, possibly causing corrupted system files that make restarting your Mac impossible. Fortunately, this problem is easy to avoid: Just don't touch your Mac while the update is optimizing—launching an application is especially dangerous, as doing so might trigger an additional optimization process. Multiple optimization processes running at the same time are the cause of the problem. If this advice has arrived too late for you, an article on Unsanity's Weblog (macworld.com/2809) explains how to undo the damage.

Don't (Kernel) Panic Recently, I decided to take a prerelease version of Patrick Stein's ScreenRecycler (free; www.screenrecycler.com) for a spin. This promising utility allows you to use the display on a "spare" Mac (such as a laptop temporarily sitting idle) as a second monitor for another Mac. I installed the program and restarted my Mac—and saw a kernel-panic message. This is the sweat-inducing message that states, "You need to restart your computer," in multiple languages. Every time I restarted, the message appeared.

Fortunately, there's a simple way around kernel panics—especially ones that occur at startup after you've installed new software. Restart your Mac and hold down the shift key immediately after the tone sounds. (You can let go when the gray Apple logo appears—see this Apple article for more details: macworld.com/2810.) The Mac will boot into Safe Boot mode. Next, navigate to the/System/Library/Extensions folder and locate a file associated with the application you just installed. Its name will end with the file extension *.kext*—in my case, it was called ScreenRecyclerDriver.kext. (If you're unsure which .kext file is the relevant one, use CharlesSoft's $20 Pacifist [www.charlessoft.com] to open the software's Installer package and see which .kext file was installed.) Drag the file to the Trash and restart your Mac again normally, and all should be fine. Of course, this means that you can't use the program. But if it's a prerelease (beta) version, as my version of ScreenRecycler was, the bug will presumably be squashed before the official release.

Vista Black Screen If you're using Boot Camp to run Microsoft Windows Vista, and you have a Bluetooth device (such as a mouse or keyboard), you may see a black screen when you wake the Mac up from sleep—and find yourself unable to use your Bluetooth device. To prevent this, you need to install a Vista "hotfix." The details are available on Microsoft's Web site (macworld.com/2811).

EyeTV Password Problems Are you having trouble logging on to your Mac or accessing Keychain? Do authentication dialog boxes disappear (in other words, crash) almost immediately after they appear? If you've recently installed Elgato's $80 EyeTV 2.4 (version 2.1, ★★★★½; macworld.com/1239), it may be the problem. The unusual cause of this bug is an interaction between an MPEG QuickTime component installed by EyeTV in the /Library/QuickTime folder, and 3ivX and DivX components that, if present, are located in the same folder. One quick way to fix the problem is to remove the 3ivX and DivX components and restart your Mac. Alternatively, download the "revised" EyeTV 2.4 (build number 2654 or later—you can check this by selecting the EyeTV: About EyeTV menu item) from macworld.com/2812. If you make sure you've got that version, you'll avoid the problem altogether.

Senior Contributor **Ted Landau** is the founder of MacFixIt (www.macfixit.com), a Web site devoted to reporting Mac problems and solutions. Got a problem to report? E-mail bugs@macworld.com or post it in our Mac 911 forum at Macworld.com.

these functions can be initiated with the press of a few keys. Apple has done its best to make accidentally activating these key combinations difficult, but that can still happen.

And it happened to you. Somehow, you managed to press ⌘-F5. This command fires up Voice Over, a helpful tool that can recite the name of the foremost application and the names of items within it, while highlighting those items (that's the dark rectangle you're seeing). Press ⌘-F5 once more, and your Mac will cease its jabbering.

Export AIFF Podcasts in GarageBand

Q: I create my podcasts in Apple's GarageBand. I generally like the program, but one thing bugs me. GarageBand will export my podcasts only as compressed audio files. I'd like to export them as uncompressed AIFF files, so I can process them with other utilities that don't work with MPEG-4 files. There doesn't seem to be a way to do this.

From the Macworld.com forums

A: It is annoying that GarageBand doesn't offer an obvious way to export podcast projects as AIFF files. But the operative word here is *obvious*. It can be done.

The key is the Podcast track that appears at the top of GarageBand's window—the one that contains such stuff as graphics and chapter markers. Make that track go away, and you can export a podcast as an AIFF file.

Once upon a time, I would have recommended that you assemble your audio, delete the Podcast track, export your audio, have your way with the resulting AIFF file, and import that file back into GarageBand. Adam Christianson, the host of the popular MacCast podcast (www.maccast.com), offers an even better solution.

All you need to do is *hide* the Podcast track. To do so, select the track and choose Track: Hide Podcast Track. The Podcast track will disappear. When it does, the Share: Send Podcast To iTunes command changes to Send Song To iTunes, which lets you know that the file will be sent in the AIFF format. (When you want your Podcast track back again, just choose Track: Show Podcast Track.)

Then you can locate the original file in iTunes (control-click on the file and choose Show In Finder from the contextual menu) and do what you like with it. After you've processed it to your liking, create a new podcast project in GarageBand and drag the file into a track. Then add your podcasty bits and export it.

Why not just create a song project in the first place if you're going to export your podcast as an AIFF file? Choosing a podcast project from the get-go provides you with that nice little podcast template—one that includes vocal tracks with the right effects already applied, as well as the Jingles and Radio Sounds tracks that many podcasters find useful.

This technique is also worthwhile when your podcast contains so many tracks that GarageBand bogs down. You can reduce multiple tracks into a single lossless track that maintains all the fidelity of the original but that, when you import it into a new GarageBand project, won't be so taxing to your Mac.

Senior Editor **Christopher Breen** is the author of *The iPod and iTunes Pocket Guide*, second edition (Peachpit Press, 2007).

TOOLS OF THE TRADE

Storage in a Pinch

You've got a file on your Mac and you need to transport it to another destination. It's the sort of situation where you want to walk the file over to that destination (when the file is especially large, for example), but you have no easy way to get it there. Sure, you could purchase an external drive, but why bother when you might have something inexpensive at hand that will work in a pinch?

Your iPod Just about everyone has an iPod these days, but far too many of us fail to recall that in addition to being the coolest media player on earth, display-bearing iPods are also handy storage devices. Just jack your iPod into your Mac. After iTunes launches, select your iPod in the Devices list, click on the Summary tab if it's not already open, and select the Enable Disk Use option. Now you can copy the file to its hard drive and then copy the file from the iPod to another computer's hard drive.

Your Laptop The main convenience of a laptop is its portability. Another convenience is that it can act as a high-capacity storage device. To move a large file from your laptop to another Mac, string a FireWire cable between the laptop and the target Mac, restart the laptop while holding down the T key to put it into Target Disk Mode, and sing Apple's praises when the laptop's hard drive appears on the connected Mac's desktop, ready to have files copied from it to the drive of the connected computer.

A Raw Hard Drive If you're a longtime Mac user, you probably have at least one spare computer. Scavenge that Mac's hard drive from its innards and then purchase Newer Technology's $25 USB 2.0 Universal Drive Adapter (♦♦♦♦; macworld.com/2626). This is an adapter kit that allows you to plug an unhoused ATA, IDE, SATA, or ATAPI drive into your Mac's USB port. The resulting drive is anything but pretty, but it's highly functional (see "Universal Drive Adapter").

Digital Camera Storage Card That storage card inside your digital camera is useful for more than holding pictures. Mount it on your Mac with a card reader, and copy files at will.

Universal Drive Adapter With Newer Technology's USB 2.0 Universal Drive Adapter in your toolbox, you can easily reclaim a hard drive from an old Mac and use it with your new Mac.

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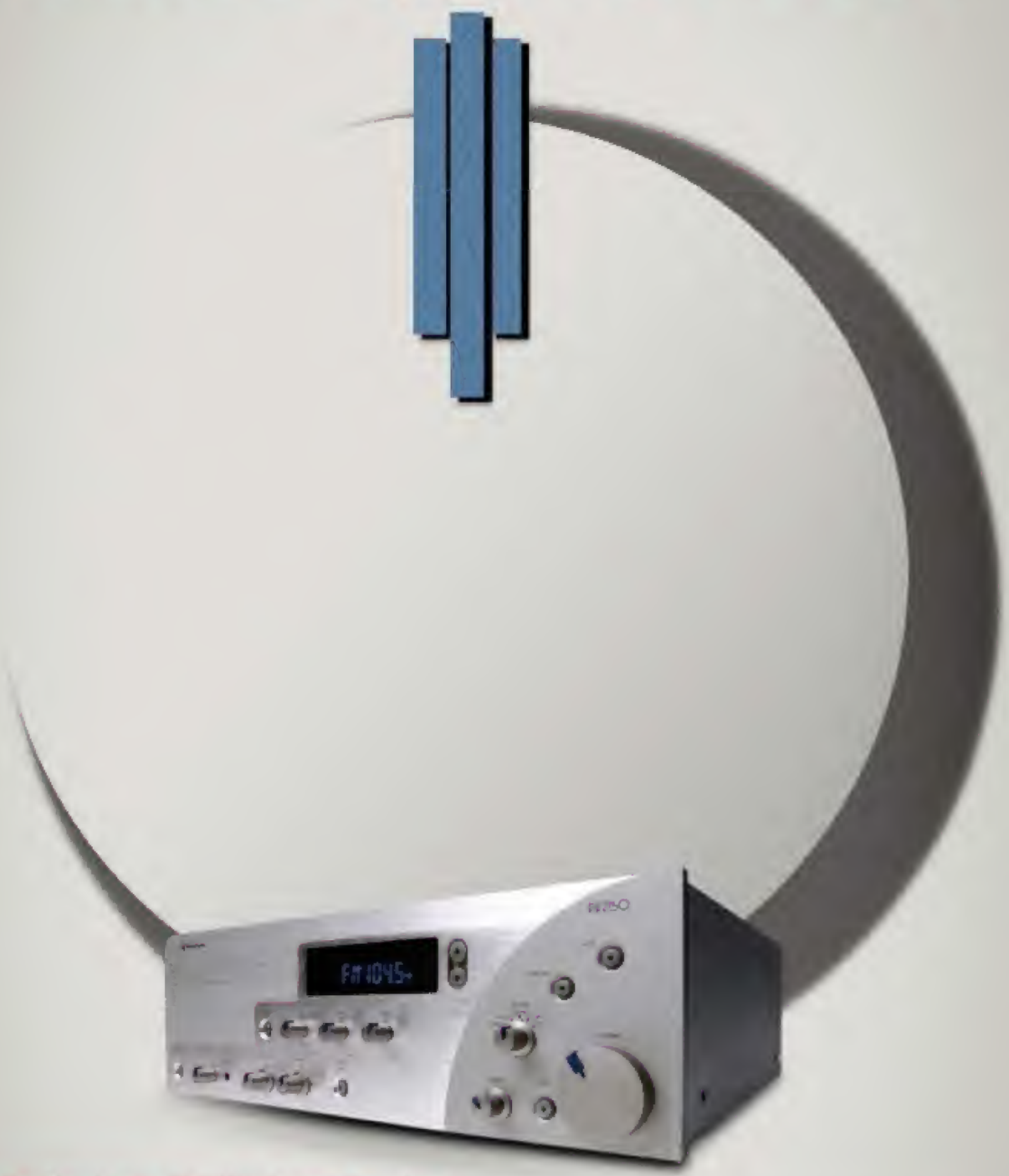

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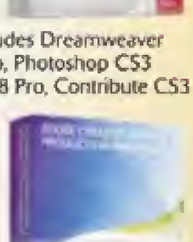

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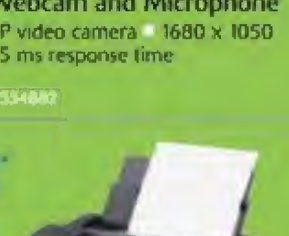

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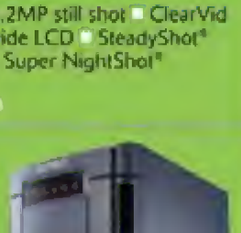

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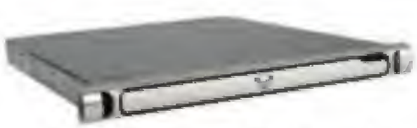

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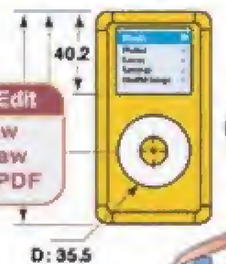

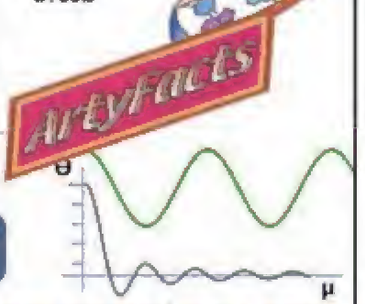

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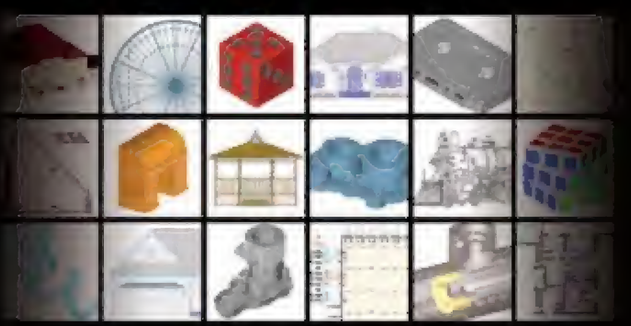

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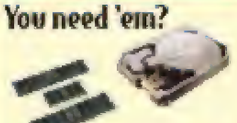

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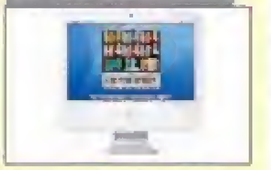

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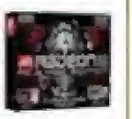

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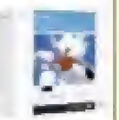

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A Day without Steve

Someday, Steve Jobs will have to step down. What then?

One sure way to dampen the spirits of a Mac enthusiast is to start talking about Apple without Steve Jobs at the helm.

A decade after Jobs's return to the company he founded, the bad old days of the "beleaguered" Apple Computer Inc. have mercifully faded into memory. Apple today seems as strong as it has ever been, with hit products, steady profits, and money in the bank. Clearly, Steve Jobs is not just the hero of Apple's recovery. He is the corporeal manifestation of the resurgent Apple—past, present, and future.

But Jobs's battle with cancer a few years ago and the more recent options-backdating scandal have forced Apple followers everywhere to consider some uncomfortable possibilities. There's also the more prosaic possibility of his retirement.

Lest you think that Jobs would never willingly leave his role at Apple, consider the case of Bill Gates, another leader who is strongly identified with the company he founded. Yet today, he is slowly relinquishing his leadership role at Microsoft. If Bill can learn to let go, then so can Steve.

Steve's Superpowers

Whatever its cause, what might Jobs's departure mean for Apple?

Steve's best-known talent is his ability to charm and persuade. The widely held belief is that his Reality Distortion Field (RDF) is a superpowerful form of salesmanship, which Jobs can use to convince anyone of anything.

Nothing could be further from the truth. In fact, if there's one thing Steve Jobs cannot do, it's lie convincingly about what he thinks of a technology product. Witness the disdain he displayed at the introduction of the Motorola Rokr cell phone two years ago. His disgust was transparent when he seemed to be unable to make the phone work correctly during the demonstration.

Steve's persuasiveness stems entirely from his own personal certainty. You begin to believe that the new iPhone is the greatest communication device ever created because Steve believes it. Conversely, if he doesn't believe it, you don't feel it.

This transparency may seem like a crippling liability, but it's actually a strength. What makes a Steve Jobs keynote so compelling is the fact that his opinions translate directly into Apple's policies and products.

Obviously, one person can't control every detail of every product, but Jobs has proven time and again his willingness to reach all the way down the organizational chart and make decisions about even the smallest features. His readiness to exert control over anything makes the idea that he controls everything seem reasonable. The coincidence between what Apple produces and what Steve Jobs can convincingly speak about reinforces the RDF legend.

Steve's persuasiveness stems entirely from his own personal certainty.

PHOTOGRAPH PROVIDED BY JOHN SIRACUSA

What Would Steve Do?

Many of the things that make Jobs a captivating public face for Apple also make him an effective leader within Apple. His tendency to micromanage can more charitably be viewed as a refreshing willingness to cut through bureaucracy. Few "insanely great" products are created by committees, after all.

And if one person must make all the final decisions, Jobs is an excellent choice. He may not always be right, but his batting average is pretty darned good. And when he does foul one off (as with the design of the original flat-screen iMac) or strike out entirely (the G4 Cube), he moves on immediately. He may be remembered for his hits, but his failures have been equally responsible for honing his instincts.

Contemplating a Jobs-less Apple, it's hard to imagine that anyone could play the same role in the company that Jobs does now. Though promoting from within seems the obvious choice, it may not be possible to find a replacement for Steve Jobs inside Apple. Autocratic rule tends to breed weak middle management. Current Apple executives often seem motivated by fear of Jobs rather than by their own intrinsic factors. Even worse would be someone who emulated Jobs's despotism without his accompanying good instincts.

The only effective transition strategy may be to retain Jobs in spirit while converting the organization to a more democratic structure. Let the management mantra be "What Would Steve Do?" Above all, Jobs has always wanted to make the best products possible. To paraphrase Socrates: Virtue does not come from market share; rather, from virtue comes market share and all other good things. Steve Jobs may never be equaled by another single person, but he may be bettered by an entire organization that stays true to his ideals.

John Siracusa is a columnist for Ars Technica (arstechnica.com).

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